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# CURRENT ISSUES IN HIGHER EDUCATION

1959

THE RACE AGAINST TIME:  
New Perspectives and  
Imperatives in Higher  
Education

ASSOCIATION  
FOR HIGHER EDUCATION

A Department of the National Education Association

1201 Sixteenth Street, N.W., Washington 6, D. C.

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CURRENT ISSUES IN HIGHER  
EDUCATION 1959

THE RACE AGAINST TIME : NEW PERSPECTIVES AND  
IMPERATIVES IN HIGHER EDUCATION

THE PROCEEDINGS OF THE  
FOURTEENTH ANNUAL NATIONAL CONFERENCE  
ON HIGHER EDUCATION

Chicago, Illinois, March 1-4, 1959

Edited by  
G. Kerry Smith

ASSOCIATION FOR HIGHER EDUCATION  
A Department of the National Education Association  
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## FOREWORD

"Higher education has a responsibility not only to help maintain national defense but also to help foster international sanity. Never before has need for improved communications, for mutual understanding, for cultural interchange among peoples been so great. It is higher education's sober responsibility to help lead Americans out of the provincialism of the present into an awareness of the needs, concerns, interests, and perspectives of the world community of which we are a part."

The above paragraph from the preamble of the resolutions adopted by the participants in the Fourteenth National Conference on Higher Education at Chicago on March 4, 1959, epitomizes the thinking at this annual gathering of college and university leaders. The theme of the conference, "The Race Against Time: New Perspectives and Imperatives in Higher Education," is echoed in this caution from the preamble.

There has been a continuity in the past several conferences sponsored annually by the Association for Higher Education. The whole of the higher education enterprise in the United States in its national and international setting is a concern appropriate to the nature of the Association for Higher Education, an organization which includes in its membership professors, instructors, deans, business managers, and presidents.

In 1956, for example, former Senator William Benton sounded the opening barrage of a debate which persists to this day, namely, implications for American higher education of the developments and achievements of Soviet education.

The 1957 annual conference was in a relatively more optimistic keynote with its "Bold New Look at the Not-Too-Distant Future"; participants examined some of the limitless opportunities made possible by social and technological developments. The appearance of the first Russian missile to outer space, however, in October of the same year brought a sobering note and many reminders of the earlier warning from William Benton.

The 1958 annual conference addressed itself to the theme of "Strengthening Quality in the Satellite Age." Later in 1958 the Rockefeller Commission report on the "Pursuit of Excellence" and many statements and addresses emphasized this same theme of quality.

By the time of the 1959 conference we were again ready to look to the future with an awareness of the difficulty of the tasks but also with a renewed confidence.

Also in 1956, Alvin C. Eurich of the Fund for the Advancement of Education, Professor Warner G. Rice of the University of Michigan, and President Harold Taylor of Sarah Lawrence College took part in a

memorable symposium under the general topic of how we can maintain and improve the quality of instruction in light of the rapidly increasing enrollments and the certainty that the supply of able teachers will not be adequate for the requirements. Eurich called for increased use of technological improvements; Rice recommended more effective teaching; Taylor urged that students be encouraged to take greater initiative in the development of their own educational programs. Since 1956 these three themes have appeared in conferences, workshops, and in institutional planning sessions. They were reflected, again, in discussion groups in the 1959 Association for Higher Education conference. For example, one of the most popular groups at the conference concerned itself with an examination of outstanding individual student work programs; an evening panel was concerned with relationship of new media to education.

Still another approach to the same dilemma of more students and not enough professors was advanced by Beardsley Ruml in his address to the 1956 AHE conference. The text of this same lecture was enlarged into a small book, *Memo to a College Trustee*. This book, calling for trustee action in reducing the number of courses taught, applying technological devices, and increasing the ratio of students per faculty member, has recently become a topic of lively discussion.

Three major concerns were prominent in the 1959 annual conference: (1) international problems, (2) the national interest and education, and (3) the future programs of the colleges and universities. From the opening panel, which dealt with "Higher Education and the World Scene," through several related discussion groups to Senator Humphrey's banquet address in which he proposed a positive program for educational development by making use of U.S. financial resources already available in respective countries throughout the world, the international issues were in the warp and woof of the conference fabric.

How to resolve the conflict between the multiplying demands growing out of the national interest, on the one hand, and the historic function of the university, the age-old search for truth, on the other hand, was a major concern of the 1959 conference. The major addresses by M. H. Trytten and Harold W. Stoke and the discussions which followed brought to light new problems which did not exist in earlier days.

Another sign of the pervasiveness of this particular theme was the vigorous debate on the "disclaimer oath" of the National Defense Education Act of 1958. The conference voted to request the Congress of the United States to remove this requirement.

The penetrating analysis of present-day trends in the internal organization and purposes of the colleges and universities was projected into the future by Frank Bowles. In the concluding address of the conference, John Kenneth Galbraith related the national interest to education

in the realm of economics. Again with a look to the future and its impact on the colleges and universities, he examined the present social balance and found a need for change in the direction of concentrating a higher percentage of the total resources of the nation for the "public" as contrasted with the "private" budget. In an analysis on economic factors alone, Galbraith stated that the nation, in its future policies, would be short-sighted if this social balance were not corrected.

In short, in this complex world the campus, the national capital, and the international issues have become so intimately related that the wisdom of the ages as well as the best thought of present-day scholars will be required.

As a matter of record, the 1959 conference brought together 1118 participants from 43 states and the District of Columbia, representing 474 colleges and universities (both public and private), 133 lay and professional organizations, and 21 government agencies.

G. KERRY SMITH

June 13, 1959

## **ACKNOWLEDGMENTS**

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Users of this volume will be pleased to know that Lewis B. Mayhew, Director of Research for Stephens College, performed the onerous but valuable task of preparing the index.

G.K.S.

## **PROGRAM**

**Sunday Evening, March 1**

### **GENERAL SESSION ADDRESS**

**"Higher Education in the World Scene"—Panel Discussion**

*Moderator*

**KARL W. BIGELOW, Professor of Higher Education, Teachers College, Columbia University**

*Panelists*

**HARLAN CLEVELAND, Dean, Maxwell Graduate School of Citizenship and Public Affairs, Syracuse University**

**URBAN H. FLEEGE, Professor and Chairman, Education Department, DePaul University**

**NICHOLAS GONCHAROFF, Secretary for International Education, International Committee of the YMCA, New York City**

**ROBERT J. HAVIGHURST, Professor of Education, The University of Chicago**

**F. CHAMPION WARD, Director, Development Program for Near East and Africa, The Ford Foundation, New York City; formerly Consultant in Education to the Government of India**

### **CONFERENCE SOCIAL**

**Monday Morning, March 2**

### **GENERAL SESSION ADDRESSES**

**"National Necessity and Educational Policy"**

**HAROLD W. STOKE, President, Queens College**

**"Higher Education as an Instrument of National Policy"**

**M. H. TRYTTEN, Director, Office of Scientific Personnel, National Research Council, Washington, D. C.**

**Monday Morning and Afternoon**  
DISCUSSION GROUP MEETINGS 1-15

**Monday Evening**  
INFORMATION SESSIONS

**"The National Education Act and Current Issues Before the Congress"**

**HOMER D. BABBIDGE**, Director, Financial Aid Branch, Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

**JAMES L. McCASKILL**, Assistant Executive Secretary for State and Federal Relations, National Education Association, Washington, D. C.

**"Russian Education Re-examined"**

**NORMAN P. AUBURN**, President, The University of Akron

**RUTH DUNBAR**, Education Editor, *The Chicago Sun-Times*, Chicago, Illinois

**HARRY C. KELLY**, Assistant Director for Scientific Personnel and Education, National Science Foundation, Washington, D. C.

**JOHN B. WHITELAW**, Chief for Teacher Education, Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

**"Instrumentation for Teaching and Learning in Higher Education: New Media"**

**SEYMOUR A. SMITH**, President, Stephens College

**"Reports on Research Projects in Higher Education"**

**ROY M. HALL**, Assistant Commissioner for Research, Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

**T. R. McCONNELL**, Professor of Higher Education and Director, Center for the Study of Higher Education, The University of California at Berkeley

**ELMER WEST**, Director, Office of Statistical Information and Research, American Council on Education, Washington, D. C.

"Developments in School and College Segregation-Desegregation: A Factual Report"

**LUTHER H. FOSTER**, President, Tuskegee Institute

"Analysis of the Literature on Higher Education"

**LEWIS B. MAYHEW**, Director of Research, Stephens College

"Institutional Long-range Planning: A Formulation of Procedures"

**H. LAWRENCE WILSEY**, Director, Educational Administration Department, Booz, Allen & Hamilton, Chicago, Illinois

"Successful Practices for Recruiting College Faculty"

**JOHN K. FOLGER**, Associate Director for Research, Southern Regional Education Board, Atlanta, Georgia

**FREDERIC W. NESS**, Academic Vice President, Dickinson College

"Local Institutional Development Programs and the National Advertising Campaign for Higher Education"

**ELDREDGE HILLER**, Vice President, Public Information, Council for Financial Aid to Education, New York City

**Tuesday Morning, March 3**

**GENERAL SESSION ADDRESS**

"Patterns of Dominance and Choice"

**FRANK H. BOWLES**, President, College Entrance Examination Board, New York City

**Tuesday Morning and Afternoon**

**DISCUSSION GROUP MEETINGS 16-31**

**Tuesday Evening****MUSIC**

The Varsity Glee Club of Purdue University

**ALBERT P. STEWART**, Director of Musical Organizations, Purdue University, Conductor

**BANQUET SESSION ADDRESS**

"College Teaching in Today's World"

**THE HONORABLE HUBERT H. HUMPHREY**, United States Senator from Minnesota

**Wednesday Morning, March 4****GENERAL SESSION ADDRESS**

"The Social Balance"

**JOHN KENNETH GALBRAITH**, Professor of Economics, Harvard University

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## GENERAL SESSION ADDRESSES

### Panel Discussion: HIGHER EDUCATION IN THE WORLD SCENE\*

**Moderator** KARL W. BIGELOW, Professor of Higher Education, Teachers College, Columbia University

**Panelists** HARLAN CLEVELAND, Dean, Maxwell Graduate School of Citizenship and Public Affairs, Syracuse University

URBAN H. FLEEGE, Professor and Chairman, Education Department, DePaul University

NICHOLAS GONCHAROFF, Secretary for International Education, International Committee of the YMCA, New York City

ROBERT J. HAVIGHURST, Professor of Education, The University of Chicago

F. CHAMPION WARD, Director, Development Program for Near East and Africa, The Ford Foundation, New York City; formerly Consultant in Education to the Government of India

*Mr. Bigelow:* I am going to begin by asking a member of this panel, Mr. Ward, if he will discuss some of the things which, as regards higher education and its problems in the United States, his observations in other parts of the world have particularly impressed upon him.

*Mr. Ward:* One of the most impressive and pervasive facts in recently sovereign nations now eager for rapid development is that they have a thirst for and confidence in education that has to be seen to be believed. It is extremely widespread and it takes the form of the very general but insistent desire that previously restricted educational opportunities be extended as widely and rapidly as possible. This seems to me to be one of those almost sub-political surges which is independent of the ideology of the particular regime of any country. The political leaders have to satisfy the people's hunger for schools, or they won't remain in power, even though their power appears to be aristocratic, authoritarian, and independent of whether extensive social services are provided. Kings, presidents, and prime ministers never fail to promise to provide a few schools in their tours of the countryside, and would not last very long, in my opinion, if they did not.

\* This digest of the panel discussion was prepared by HAROLD A. BASILIUS, Director, Wayne State University Press, Wayne State University.

It is to this background that the interest in American education tends to attach itself. There is a narrow and a broad aspect to the matter. In the narrow view, they think Americans are unusually proficient in technical and vocational education and that this is important for industrial growth. More broadly, they seem dimly to realize that we have had a longer experience of education based on the assumption of social equality than any other people, and therefore they look toward us but do so without too much of a notion of what they are going to find or whether they are going to like it.

*Mr. Havighurst:* While I agree that there is a demand for more educational facilities all over the world, I think there is a big difference between the demand for primary educational facilities as opposed to those for higher education. As Mr. Ward suggested, the statesman and the political leader must be prepared to offer schools to the people, but I am not impressed with the size of the demand for universities. There are some limiting factors in the expansion of higher education around the world, and these factors operate to restrict higher education much more than they do in this country.

Americans generally claim to be expansionists about higher education. It is not very popular in our country to say that we have too many institutions of higher education and too many students, but I believe there is no other country in which a person would be unpopular if he proclaimed a policy of limitation on higher education. Even Russia, which approaches us in the extent of its higher education system, is concerned only with having as many students as it thinks it will need to operate the economy. In the last year or so it has reached that level and now proposes to maintain higher education at that limit and not allow it to get any larger.

There are two principles that tend to limit higher education and resources in higher education around the world. One is the need of the economy: what is needed to produce the people who will be engineers, managers of various kinds, and members of the professions. The other, which is very widespread, particularly in the less developed countries, is the restriction on opportunity for higher education maintained by the old upper classes, the old aristocracy. For these people, education is something which enables their children to preserve the family status and so they tend to resist the expansion of higher education. This can be seen throughout Latin America and India. It is coming now in Africa.

*Mr. Ward:* The facts do not always support Mr. Havighurst's view. In Burma, for example, it was politically necessary to announce that everyone has a right to higher education. As a consequence, the University of Rangoon was hopelessly overexpanded and very much alarmed about the fact. But it was not popular to say so.

In India, I think something like between 15 and 20 universities have been born in the last 10 years. I remember one member of the Grants Commission in India saying, "It is not just people who are guilty of improvident parenthood; the universities also are being spawned on a

shoestring." The Indians tried to resist this pressure, but it was not politically possible.

*Mr. Havighurst:* The large numbers of children now in school will probably create pressure to expand higher education, but I think the tendency in most countries will be to operate much as Britain has. A few years ago British university enrollment was increased reluctantly from 50,000 to 70,000. It might go to 100,000. But I'm sure that in Britain the forces of selective opportunity will take over; the powers that be are going to limit the enrollment if they can.

*Mr. Fleege:* In general, the points Mr. Havighurst made, namely, need for status, operate in practically every country. There is possibly one exception, the Philippines, and perhaps that is because the United States has had a very close tie there for 50 years or more. I don't think there is any limitation on higher education in the Philippines. Look at some of the overcrowded professions. For example, they have over 100,000 qualified teachers, graduates of a four-year college program, but no jobs exist for them. The number of qualified but unemployed teachers almost equals the number of teachers actively employed. The same situation prevails in the field of law.

*Mr. Bigelow:* Mr. Fleege, you have been in Russia recently. Would you care to comment on the situation there?

*Mr. Fleege:* My stay in Russia was brief. I can, therefore, only comment on some impressions. The Russians are stimulating a real thirst for education. Whether this is restricted to fulfilling economic needs, I don't know. But Russian students do exhibit a real desire for education. Perhaps they are motivated by the thought that it is the educated class that has privilege and that as students they do not have to conform to the limitations of the ordinary citizen. For example, the average citizen in Russia is permitted five to nine cubic feet of living space. However, professors, writers, researchers, and the like do not have to comply with that requirement. A good education is the key to a position of privilege in Soviet Russia.

I was impressed with the fact that Russians have a serious interest in getting a better education. This interest may even be greater than that of the average American. We may not like their motives but we have to admire their persistence.

*Mr. Bigelow:* Mr. Goncharoff, you too were there, in Russia, and have been in touch. Would you like to comment?

*Mr. Goncharoff:* In discussing so complex a subject, my comments can only touch on elementary matters and are given in great humility.

Russians use two words in talking about education; *viz.*, *Obrasovaniye* and *Vospitanije*. The German equivalents would be *Ausbildung* and *Erziehung*. *To nurture or to develop* would perhaps best express these ideas in English. In short, Russians conceive of education as being character building; that is, as having to do fundamentally with developing values, naturally for the interest of the Soviet state and in complete accord with the Marxist philosophy. Thus, the sweeping educational

reforms announced by the Soviet Union in 1935 state that "the communist, as regards his education, must become free of the unworthy characteristics derived from the exploiting regime of such things as private property and individualism."

Soviet literature clearly reflects this new generation which is trained exclusively in the communist world. As poetess Olga Berggolts has said, "In a great many of our lyric poems the most important thing is lacking—humanity, the human being." Ehrenburg said, "We have taken a lot of trouble with half of the human being, but the other half is neglected. The result is that half of the house is a slum."

The present Soviet education on the one hand has trained fanatics. On the other hand, however, it has opened wide the door for the search for the meaning of life which is going far beyond the official requirements of education.

The Ministry of Higher Education is currently much concerned with repairing and strengthening vulnerable spots such as the inculcation of absolute faith in the orthodoxy of dialectical materialism and communism. Thus, at the Twenty-first Party Congress, it was said that "our greatest danger is that the younger generation appears to be poisoned by the many ideologies which should not exist in our society."

The ultimate goal is stated in Utopian terms in an official journal of higher education thus: "In my opinion, there will be no schools in the future communist society. Children will begin early in voluntary social work. Thence the child will proceed to industrial establishments or enterprises, and thence to the library, where he will find with his right, conscious mind the answers to the problems of interest to him. We come nearer and nearer to this goal."

The "Theses" of the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers of the USSR, which was published in *Pravda* November 16, 1958, announces sweeping reform of the Soviet school system. "Every young man, every girl," said N. S. Khrushchev to the Thirteenth Komsomol Congress, "must know that in the course of their schooling they must now train themselves for labor which has the purpose of creating values useful for man and society. Everyone must, irrespective of his parents' position, have one single road in front of him—to go forth and to learn and, having learned, to work."

Education and ideology are organically interwoven in the Soviet Union. That fact accounts for what appears to be the greatest of the Russian paradoxes; *viz.*, that during the past five years the managerial class (technicians, technologists, scientists) have become the best paid group—in many cases better paid than the average American professor. Why? Because the members of this group mold the minds and hearts of the youth. And youth has two capacities, the capacity for wonder and the capacity for delight. Communist philosophy has always as one of its main goals challenge to the idealistic and sincere minds of youth.

*Mr. Bigelow:* It strikes me that three possible goals of higher education have been articulated: the preparation of an elite, the preparation of

people who need higher education in order to fill certain specific technological and higher jobs and, finally, a much more widespread and general kind of education, perhaps I could say for citizenship. And while the argument up to this point has been the degree to which any or all of these goals dominate other countries, implicit in the discussion, I suppose, has been a question as to which are the worthy goals. Mr. Cleveland, maybe you, with your particular background, would like to comment on that formulation of ideas.

*Mr. Cleveland:* We seem to be continuing the practice of using Russia as our standard of value in American education, and I wonder whether it isn't about time to call a halt on this and to ask the question, "Would we know where we are if it weren't for Russia?"

Khrushchev states, "It is your system against our system," and everybody nods his head and says, "Yes, it is our system against your system." We don't have a system. We have a protected pluralism of systems, and the adoption of a system would seem to me to be the logical conclusion of taking Russia as our standard of educational values.

There is one lesson we can learn from the Russian way of looking at their educational problem. The lesson is not that we should educate people only up to the point where they are useful to society, because no one is bright enough to know just what that point is. We can, however, learn from the Russians the kind of forward lean they have given to their education. They tend to educate in terms of a history that they feel they can foresee, and that is going to come out just the way they have it planned. We, on the other hand, regard history as a science of the past. And so I think that we are going to find ourselves faced by this challenge of the race (not so much against Russia as) against time, to push our assumptions forward.

Are we really assuming rapid social change in our educational system? We are certainly not in our diplomacy. We deal these days with an existing government. It is regarded almost as heresy to talk of getting along with the next government, or to say that the fact that a regime is in in this fast changing world is really just another way of saying that it is on its way out. The same, I think, can be said of education: that we tend to talk and focus our students' attention much too much on what is and what has just recently been, and not on an attempt to project, and especially their attempt to project, what kind of values we get to next.

Galbraith has really brought this idea to a focus in *The Affluent Society*<sup>1</sup> by pointing out that for the first time we have a society which has realized all of the values we have been striving for during the first half-million years or so of mankind; namely, three square meals a day. Where do we go next? Most of the rest of the world is still trying to get three square meals by following our lead but are they going to follow us long if we don't know where we are going next? This points up the need to get our students far more deeply into questions of ultimate goals

<sup>1</sup> Gailbraith, John Kenneth, *The Affluent Society*. Boston: Houghton Mifflin, 1958.

than has ever been the case before.

*Mr. Bigelow:* Are you now talking of an elite of students or a technological group that have been prepared for identified and specified jobs, or of everybody?

*Mr. Cleveland:* I once tried to count the opinion leadership in this country, and I came out with 550,000 people at a minimum, and by other possible definitions, two or three million. When you have that many, I think you are really talking about the whole higher educational system at least. The problem of selecting a few people for leadership breaks down in a highly industrialized society where you acquire importance by being a specialist. You don't acquire opportunities for general leadership till you are 35 or 40. Those who are successful at this are the ones who establish the values in our kind of society.

*Mr. Havighurst:* You seem to look forward to America's tomorrow only as regards institutes of technology, engineering schools, etc. You suggest that our future technologists and engineers are sufficiently well trained but that in the liberal arts colleges and graduate schools we are not preparing young people to think realistically and effectively about the prospects of democracy and human values in the world of tomorrow, a world that will be more interdependent, where more and more of our people are going to work abroad. American higher education should, you believe, be more concerned with trying to foresee the kind of world that we are going to have 10, 20, 30 years from now and should try to prepare students to work more effectively in that world.

*Mr. Ward:* Is it possible, Mr. Havighurst, for all of us to agree on any concrete future world image for which education should prepare students? Is there enough reasonable, nonprophetic knowledge about what the future is going to look like to enable us to plan the studies of American students from here on?

*Mr. Havighurst:* I am not sure and at this point I want to avoid a discussion of values or ultimate goals. But let's examine a specific example, Africa.

I believe that 25 to 40 years from now a broad belt across Central Africa is going to be more highly developed politically and economically. Already there has been some talk about forming a federation of African nations. This group will be very important in the United Nations. Where in American higher education can the young people who will be in the position of leadership 25 years from now get that idea now? That ought to be a part of the general education of young people and ought to consist of looking at the growing areas, the areas of the greatest economic and cultural developments in the world, finding out what trends, what directions they are taking, what their problems are.

Latin America provides still other examples. I suppose that 50 years from now Brazil, Argentina and Chile will have a customs union which will be just about as strong economically as the U.S.A. They will be competing with us economically. But where does an American youngster in the university now get any notion that this may come about?

We have been talking about values. I have no objection to that, but I think we ought to pay more attention to social and economic facts in our higher education.

*Mr. Cleveland:* Why is it that when we focus on these questions of what huge changes the future will bring, we always find ourselves talking about Africa, Russia or Latin America, and never discuss the U.S.A.? I think it possible to identify quite a lot of different modes of change that are not now given adequate attention. Large-scale organization is one. How long are we going to continue to complain about the fact that the large organization is somehow oppressive to the individual, without attempting to think how we can maintain, perhaps even increase, the degree of human dignity and freedom in a situation characterized by large-scale organizations, or, as I prefer to believe, by the individuals who have learned how to operate in a large-scale organization? How much of that kind of thinking is in our college curriculum these days?

*Mr. Fleege:* I agree that education is typically a generation behind current events. Our educational system is woefully inadequate regarding knowledge of the culture, the language, the history and the problems of the people we shall be dealing with in the immediate future.

But I should like to return to the matter of values which has been mentioned several times. In so doing, I'd like to underscore Mr. Goncharoff's remarks regarding the Russian effort to develop in students a driving force to realize the communist ideal of life. The zeal for democratic values and ideals on the part of an American college graduate would be no match for the intense conviction of his Russian opposite number.

The American system of higher education seems to be less effective in inculcating democratic values than is the Russian system in inculcating materialistic, communistic values. Though I concede the great importance of teaching economic facts and ideas regarding the world of the future, we must not overlook the importance of teaching values. These are as important with reference to the underdeveloped and now nascent areas of the world as are the economic aspects of these areas.

*Mr. Goncharoff:* To pursue Mr. Fleege's argument a little further, I'd like to offer some illustrations in the spirit of the African's remark to the French missionary: "We are grateful to the missionaries in Africa. They teach us to read, and we teach them to think."

It has been said that "there are false and half-perverted principles of faith more influential and powerful than the truths derived from science." The following statement of Lenin is a case in point: "Marxism is the only objective truth. If we follow any other path, we shall arrive at nothing but falsehood and confusion." The Soviets limit themselves to the "truth" of this pronouncement, in the same dedicated spirit with which a Christian limits himself to the Creed.

The chief goal of Russian education is, in Khrushchev's words, "To produce builders of a new society, individuals of great spirit and lofty

ideas, wholeheartedly serving their people who are marching in the vanguard of progressive mankind."

It is such statements of the Russian creed that give to young Russians the dynamic zeal and vitality to "liberate" the world!

In Cairo some months ago, I, a new American citizen, was discussing with about 120 Cairo University students problems of democracy. These students like to discuss all possible things, including what is happening in the United States, and their comments are not always flattering. Suddenly one of the students, about 25 years of age and a Moslem, said, "Do you understand that for me the writings of Jefferson and Lincoln are just as holy and sacred as the writings of the Koran? You in the United States don't give us a chance for a hearing. Your forefathers would have been able to understand us but you are probably too soft and too comfortable and too self-contented."

Let me not neglect to point out that the Russians have a system for selecting gifted students, and also special schools for the gifted. These are selected from the graduates of the secondary schools and are trained to be professional revolutionaries, according to the maxim of Lenin, who said in 1916: "Give me a handful of professional revolutionists in Russia and we will turn Russia upside down." And that is precisely what he did.

The goal of transforming the whole world, of remaking the whole world according to communist doctrine, is for many Soviets romantically attractive enough to make them willing to sacrifice their lives to that goal.

*Mr. Havighurst:* It seems to me that we cannot expect to match the zeal and fervor of our students with that of these new nations who have had a recent revolution. You can only be zealous and fervent when the revolution is a fairly recent thing. Therefore, we cannot say that our education fails somehow, if we do not turn out people who are as rabid democrats as young Egyptians are rabid nationalists, or young Russians are rabid communists. On the other hand, we certainly cannot be satisfied with the amount of commitment to democratic values that we get out of our higher institutions.

The Jacob report is one that all of us ought to be concerned with. It is not that young people do not learn values in our society. They do, but they apparently do not acquire enough commitment to what we could call democratic human values to be willing to work very hard for them. Possibly the thing that we might substitute, or develop as a substitute for fervent nationalism or communism would be a real belief in the future of a world order, a democratic world order, and the desire to work for its realization. I don't think we can build up the height of energy and commitment to this to an absolute maximum but we can build it up pretty far if we devote more time to it in higher education, to visions of world interdependence, peaceful and democratic. We need to ask how we can teach young Americans to make this come about.

*Mr. Fleege:* In the first place we need to teach young Americans *why* they should want to make all this come about. I am not sure, if you cornered the average American university student and asked him "why

does man have dignity?" that he would answer with clarity and conviction. The same would be true regarding the why of the other principles of our democratic faith. We neglect having our students examine and re-examine the principles that have been the seed bed from which have sprouted the freedoms we enjoy.

*Mr. Ward:* I would like to ask how we might actually devise an educational process which would increase the number of students interested in and capable of contributing to an international role that the United States seems to be headed toward and is already deeply immersed in?

*Mr. Cleveland:* I think we are gradually coming to a definition of what I was vaguely calling values a while ago and which Mr. Havighurst has defined for me as the building of a world order based on consent of the people.

Is it impossible to get some driving force behind an idea such as this? Do we have to be quite so discouraged about the possibilities of our youth? I am not worried about the kind of things that were dug up in the Jacob report, because I think it is a tribute to the good sense of our young people that they were not interested in the kind of world that was presented to them in our classrooms, inasmuch as that world is different from the kind of world we happen to be living in. We are living in a world in which countries do not deal with each other in terms of their respective histories. They deal by interpenetrating each other. International affairs for our generation are the internal affairs of other societies.

You can get young people very excited about revolutionary developments in other societies and our participation in these societies. In the days of the Marshall Plan we had the colleges of the nation battering down our doors trying to get into that program. The same was true in the very early days of the Point Four Program, before the Korean War, which quite possibly was started to get us off that very constructive foreign policy track, and which did manage to jar us loose from that policy. But the policy was exciting to our own people as well as to our friends abroad.

Still another instance will illustrate why our students remain apathetic as a result of outmoded kinds of teaching. We continue to talk in weekly press conferences in Washington and no doubt in weekly meetings of international relations classes all over the country about the principle of noninterference in the internal affairs of other countries. This is really "for the birds," and has been so for about two decades.

We are actually intervening in basic ways in the internal affairs of about 80 countries of the world. This is the exciting thing that is going on in international affairs. Why should students be interested in international affairs if we continue to teach the old diplomacy type of approach to the problem?

I suggest we get a new motivation into this whole area of concern. Intervention in the internal affairs of other countries involves intimate and direct knowledge of the life of those countries, including their lan-

guages. I think we should move very rapidly in the direction of overseas experience for our young people as a part of their educational process. A generation from now, maybe sooner, an overseas experience ought to be part of a college education and ought to be mandatory for a bachelor's degree in any first-rate college or university. An American, wholly educated at home, will be only half educated. So, for example, we have been working on languages from the supply side. Let's have more language teachers, but let's work at it from the demand side. Once we get a good part of our college population abroad, they will want to learn languages. Maybe that will pay language teachers to go into the business.

*Mr. Ward:* Young people going abroad since the war were usually the children of people who were going over to a job for ICA, or something of that sort. These children usually prove to be the most dedicated about returning to the foreign country after their return home. My most vivid impression of Americans abroad is the determination of the high school or college boy to get back by hook or crook (usually through a Ford Foundation fellowship!), to get back to the country they had had a look at. They feel apart and stifled at the prospect of being confined for the rest of their life to only one place.

*Mr. Goncharoff:* The idealism and sincerity of the American student is something that is almost unknown around the world, and that is a great pity. But such idealism and sincerity require a response, and the response often is not there, at least not in the educational realm.

When you speak to students in the American West, Midwest or East, many of them seem to have lost a respect for life. Adjustment rather than achievement is their goal. Individuality and the principle of individual creativity have been replaced, perhaps subconsciously, by the idea of togetherness. Students are afraid to be eccentric. We need more eccentrics.

The fine sincerity of the American undergraduate is at variance with the image that many foreigners have of Americans. On a recent trip to Asia and India, we had an open discussion with students at the University of Madras and we asked, "What do you as Indians wish Americans could do around the world and in your country?" The counter question was, "Would you like an American answer or an Indian answer?" Upon asking for the Indian answer, I was told:

White people, regardless of whether they be Russian, British or American, forget one little detail, that we can usually read what is written on your faces. You bear a feeling of superiority when you face us. A civilization which does not possess the gadgets you have, or which is different from yours, makes you think that civilization is either underdeveloped or lacks the talent and ingenuity to develop to the same degree as you Anglo-Saxons have. We can read the distinctions in your faces, the distinction between sincerity and that educated politeness which makes the muscles of your lips tired when you smile.

What can be done to excite and ignite the fine sincerity and idealism of American collegiate youth? I suggest a special session of the United States Congress to re-examine those ideas which were discussed when the American Declaration of Independence was born and introduced. What are the principles in which we believe? What can we say to Africa and to Asia in response to Communist assertions and to the fact of a complex of revolutions going on among our neighbors in Latin America? If such a session could produce, in its greatness and importance, another document like the Declaration of Independence, it would help us to know what we are and why we are, and, more than that, help the world to forget conquest and to concentrate instead on realizing the dignity and integrity of man. In Beirut one professor told me, "The masses are not moved by reason like the logic taught in classrooms. People are moved by ideas." And in 1959 we are not fighting with bullets anymore, but primarily with ideas.

The American student needs challenge, not only in the realm of the pure sciences, but also in the realm of the humanities. Everyone of them needs to know, for example, the philosophy of history and the history of human thoughts. They are capable of studying at least two or three foreign languages and they should be exposed to a great variety of different cultures and traditions. Only then will they realize that they have a call to greatness while they are preparing themselves not only as professionals, but as sound leaders at a time when the United States needs desperately both positive and dynamic leadership.

*Mr. Bigelow:* Our discussion has swung back and forth from what higher education ought to be doing for all Americans who must live in the world of today, to what it ought to be doing for those Americans who may find themselves in other parts of the world representing their country properly. We have heard about the quiet American, we have heard more recently about the ugly American. Mr. Goncharoff has suggested that we had better produce the eccentric American and the dignified American, and perhaps the American American.



## NATIONAL NECESSITY

### AND EDUCATIONAL POLICY

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**P**HILOSOPHERS HAVE LONG debated as to what virtues or interests of human beings, such as goodness, happiness, truth or beauty, are ends in themselves. Whatever these may be, one thing they agree upon: Education is not one of them! It is always a means to an end. "If education is not useful," asked Socrates, "what is it?", by which he meant that education had to have a purpose to serve, an end in view, and that if the end in view is trivial or unworthy, education is trivial and unworthy. In itself, education is always aimless. When the end it serves is inspiring and significant, education is inspired and significant. To interpret the remarks to follow, this fact should be kept in mind.

One can discover in our history three periods in which broad ends or purposes have shaped American higher education and given it direction and inspiration. The first purpose was religious—to serve God and to assist in establishing His kingdom on earth. This was a long period marked with its own kinds of intellectual and spiritual strain. Toward the end of the eighteenth century, new ideas found the limitations of religious doctrine too constraining. The demand for greater intellectual freedom ushered in a second era, marked by the separation of church and state and by the launching of secular education, both public and private. Throughout this second period the purpose of education came to be the production of thoughtful, independent minds, most nobly embodied, perhaps, in the Emersonian Man of Character and in the doctrine of American individualism. Democracy was the great ideal and education for democracy sought to produce the ideal individuals who would be fit citizens for such an ideal society.

While these two energizing forces in higher education have by no means disappeared, we are now entering a third period in which they have been joined by a new force which, if it does not supersede, at least threatens to overshadow them. This is the force of nationalism, a powerful, all-pervading influence. This nationalism is the product of many factors, of our growth in wealth and population; of a technology which in the production and distribution of goods and services has forced national patterns of outlet and control. The most formative influences

of all, of course, are the necessities of war, both hot and cold. The intensification of a strictly national interest in almost every phase of our economic, social and political life proceeds so swiftly that most of us suffer from breathlessness and bewilderment. We try hard to keep up, but we wish we had time to get our bearings.

Educators have assumed—and rightly—that there has always been a happy coincidence between education and national interest, that the greater the number of well-educated individuals, the greater the welfare and happiness of the nation. The new nationalism, however, goes far beyond this pleasant assumption, this coincidence of mutual benefit. It assumes that under conditions of life today all of the activities of our national life must be so conducted as to contribute to the strength of the nation, and to this principle education is no exception. It has begun to dawn upon us that education is an instrument of power on which national survival itself depends, and this indisputable fact has imposed upon education and upon educators a new obligation, superior to any other; namely, to keep the nation strong.

Stated so bluntly, the implications of the doctrine are a bit startling to those of us who have never thought of ourselves as a part of the nation's defenses, but reflection softens the shock. The greater the degree to which national strength, and particularly military strength, comes to depend upon the management, knowledge and skill of highly educated people, the clearer becomes the obligation of the colleges and universities to supply the indispensable element. There would be little education, at least of any kind we now think desirable, unless there is national survival; and if national survival depends on education, it is easy to conclude that education must be consciously enlisted to serve the national needs. The swift developments of recent years begin to make such a direct relationship between education and national necessity appear not only natural and acceptable, but inevitable. I have not seen the view more explicitly put than in a recent statement by national educational leaders that "our children's minds are the nation's greatest resource."

What I am suggesting is that we are entering a period in which the new and powerful doctrine of national necessity will work the most profound transformation in our traditions of higher education. The word "education" does not appear in the Constitution of the United States. Education, like the regulation of marriage or of the local police, is among those things which, under the Constitution, are reserved to the states or to the people. Historically that reservation has, on the whole, been respected. The federal government, it is true, has occasionally shown its sympathetic concern for education in such major measures as the Northwest Ordinance, the Morrill Act, and others which are more recent. But these measures were efforts to assist the states in meeting their responsibilities, not to supersede them. Even those who have urged even more vigorous and direct federal aid have done so on the argument that the states needed more help to reach a higher level of educational competence and thus ensure the achievement of economic

and political democracy. Many have urged federal aid; few have urged federal control.

I am suggesting that a new relationship between the federal government and higher education is beginning, and is, in fact, already well advanced. The interventions of the federal government in higher education now are no longer for the purpose of contributing to or merely accelerating the general intellectual and social benefits of education; rather, these interventions are now made directly and self-consciously, for the purpose of carrying out the national government's own responsibilities and of making its own powers effective. While education as a substantive field may belong to the states, virtually every power which, under the Constitution, is delegated to the federal government depends for its effective exercise upon an increasingly high level of education. Here is the basis for the doctrine of national necessity as a dominant, pervasive, even a controlling force in higher education. If the powers and policies of the national government cannot be exercised effectively by dependence upon the traditional organization and operation of American higher education, then the federal government will have to provide for itself the educational resources its functions require.

It is exactly at this point that national necessity and traditional higher education have, in recent years, begun to diverge. Where once the nation might trust to its diffuse and casual educational free-market to supply it with the educated people it needed, this is no longer true. Where once we could rely upon an occasional Edison or the undirected research of curious scientists in our universities to supply our essential technology, we can do so no more. The relationships of education to national strength are too direct and urgent to leave to haphazard and fortuitous provisions. If the federal government, to carry out its responsibilities, requires experts in everything from optics to foreign languages, it must itself educate such experts, if it is clear that they are not available in the numbers and with the training it requires. The new case for federal intervention in education is no longer the case for convenience or for the intellectual contributions which education makes to national welfare, it is stark necessity.

All of the recent interventions of the federal government in education support this view. Take the familiar example of the national necessity for more scientists and a higher level of competence in science teaching. The nation must risk no deficiency and it must not trust the results to chance. To meet the need the National Science Foundation is charged by Congress to inaugurate teacher training programs, a field traditionally reserved to the states. These programs will this summer reach almost one-eighth of the high school science teachers of the country who will be paid by the national government to continue their own education in special institutes. The Foundation's fellowship programs are major expressions of a national interest in recruiting more scientists and its grants to colleges and universities are intended to provide improvement in scientific training. This is not federal *aid* to education; it is the federal

*creation* of education, education of a kind and of a quantity which did not exist before, but which the national necessity now demands.

One must similarly view the new National Defense Education Act—identifying even in its name the new character of the national interest in education. The curricula it supports, the new projects it seeks to establish, are those thought to be most necessary to the national government as a basis for the exercise of its own authority and for meeting conditions to be anticipated. Here, too, is no federal aid to education; here is federal education for purposes distinctively national.

Nowhere is the doctrine of national necessity more convincingly illustrated than in the support by the federal government of research. The control of the forces which, for example, put missiles into orbit cannot be accomplished without the aid of the entire spectrum of scientific competence: the mathematicians, physicists, chemists and engineers. If the federal government cannot obtain them from the colleges and universities in the numbers it needs and with the training required, it must educate them for itself. If the laboratories of our schools do not provide the necessary research, the national government must build laboratories of its own. Actually it must and does do both. This is why federal research support filters its way in some form into almost all of our colleges and universities.

National necessity, it is true, has not yet reached the point where the government must issue commands in order to obtain the educational services of the educated persons it needs, but it has reached the point where the national government must influence the direction and policies of our institutions in order that it will be likely to obtain what it must have. This is what dictates our current measures for scholarship programs, for grants-in-aid, for research, for the support of particular portions of the curriculum, and eventually for vast school construction programs. The nation's educational needs, once determined, cannot be left to chance!

I shall not try to explore the long-range implications of this doctrine of national necessity, but there are some immediate and incidental effects to which I should like to direct attention. One of these is the way in which the new compulsion resolves many of our old conflicts. For years debates about federal aid to education have centered around issues of support for private or public institutions, of church and state, between federal and local control. National necessity smoothly obliterates these deep differences into a new unity of agreement. What difference does it make whether competent scientists are produced in one kind of institution or another if they are necessary to the national strength? Why not support research in the laboratories of private as well as public institutions if the results meet our national needs? Even the sectional differences of the country are diminished, for where the nation requires unity, such differences cannot be permitted. Thus our old antitheses which have for years held us in a paralysis of opposition over federal aid to education become reconciled into a new synthesis of national necessity.

which brings the philosophy of Hegel out of the ivory tower and makes it a guide for public policy.

A second observation is that even where the national necessity does not positively guide educational developments, it nevertheless influences them. It would, in fact, be surprising if it did not. Take the impact upon curricula. The high emphasis upon science is perhaps the most dramatic attempt directly to affect the choices of students and of the courses of study. But the influence of such a powerful magnetic force upon scientific fields brings about the realignment of other educational interests as well. In our changing social and political climate, it becomes, for example, easy to encourage the development of studies and activities which contribute directly and identifiably to the national strength and to discourage or, at least, to neglect those whose contributions are not so clear; to support science but not philosophy. The *power* subjects flourish in such a climate, the contemplative subjects wither. The classics and ancient history have virtually disappeared from the curriculum, while English, history and economics have adapted their offerings by large infusions of journalism, current social comment and applied techniques. Administrators, too, are tempted to encourage that which yields to encouragement most easily and to seek support for what can most readily obtain support.

This is not all bad. Fields of knowledge do not all grow evenly; the climate of depressions favors the social studies; the climate of prosperity, business administration; the climate of fear, the development of the *power* subjects. The very distortion of some fields eventually forces the restoration of balance with others.

This doctrine of national necessity, developing as swiftly as it has, has placed the habits and ideals of higher education and of educators under great strain. Our preferences are that we be undirected; that principles of the free market operate in our own choices and in those of our students. The intrusion of national necessity makes us restive. The necessary acceptance of *classified* work on the campus, for example, makes us acutely aware of new compulsions and restraints on our freedom in the search for and the use of knowledge. We are uneasy about finding that education which has always been a means to the enlargement of life can contribute so powerfully to its constriction. To say the least, the state of mind of higher education is one of discomfort if not outright agitation.

Under present circumstances how is higher education to adapt itself to the requirements of national necessity? Let it be said at the outset that the requirements must be accepted. The acceptance will affect different institutions in varying degree, just as it will trouble some educators more and some less. The necessity may create discomfort; it will not create dissent. If the national survival has come to depend on education, we shall accept the fact that education depends on national survival.

Must then higher education merely accept and accommodate itself to the new or intensified compulsions of national life? In general I would

say yes, that this is what we have been doing and will continue to do. The forces that create national policy range far beyond the interests and influence of education—our acceptance of them is, for educators, hardly a matter of choice.

Yet the matter is a little more complex than this implies. National necessities are the resultant of many forces. Higher education is one and, hopefully, a powerful one of these forces. When crises have actually arisen there is little that scholars can do about them; it is in the periods in between that the influence of education can most effectively make itself felt. In a world as complex, as mercurial and as full of potentialities as we find ourselves, there are many choices to be made in the conduct of our national and international affairs. It is in helping to determine these choices—choices which can contribute to or detract from the ends we have in view—that our influence can still be exerted. If these choices seem narrower than they once were, they are, by that very fact, more important. Our obligations as educators and citizens are even heavier than before.



## HIGHER EDUCATION AS AN INSTRUMENT OF NATIONAL POLICY

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**T**HE EMERGENCE OF THE relationship between education and national policy as a concept of increasing importance is clearly a postwar phenomenon. Without bothering to search, it seems possible to assert that one can examine the agenda of meetings during the years between the wars and fail to find much, if any, attention paid to this specific topic. Education historically in our country has always been a personal matter and a matter which has essentially been student-centered. The great rise in our educational system, and the support which it has enjoyed historically, has always in the past been motivated by a desire to make available to the individual the opportunities for self-development and self-advancement. The conscious relationship between education and national needs was at best secondary.

The enormous change which has resulted over the past few years started because of the extraordinary importance of certain specialized branches in relationship to the requirements of World War II. It was then we first began to take seriously in our country the question of our supply of personnel of certain special skills and educational characteristics. The race between our growing demands for such personnel and our supply has continued to emphasize this point.

More recently we have come to realize that the relationship between our supply of specially trained and qualified personnel and our welfare and security is a fundamental and primary one. We are living in an age in which the foundations of national power are shifting rapidly. Not long ago national power and prestige rested on such bases as colonial possessions, control of the seas, superior industrial and commercial strength, and great supplies of military manpower, suitably equipped with weaponry which again depended on industrial capacity. Many of these bases have now weakened or crumbled altogether. Most notably, colonial powers have seen their colonies disappear or become doubtful assets. Large scale military manpower resources are no longer a major or dominant factor. Air power has greatly modified the role of sea power.

Perhaps the greatest change has been the emergence of intellectual matters as a basis of national strength. This finds its most immediate expression in the greatly enhanced role of education and research as

prime factors in this context. It is not necessary at this juncture to emphasize the role of science and research in modern technological warfare of the conventional type. Nor indeed is it necessary to emphasize the role of these factors in the new dimension of space exploration. That there are other massive dimensions has recently been underscored by the report of the special committee on oceanography which sounded the need for a greatly expanded program of the study of the oceans. A similar sharp reminder of the need for more attention to the scientific investigation of our planet below the surface is, in the opinion of many, somewhat overdue.

The general conclusion of these preliminary remarks is that we are living in an age when, because of the shifts of the bases of power, the whole power pattern of the world is in flux. When stability is achieved, as it will be some day, at least relatively, unquestionably the new pattern will have a basis of intellectual excellence.

New countries have emerged, not only asserting their place in the councils of nations, but steadily building their own strength on education, on science, and on military and economic bases at a rate unprecedented in history. This is being done with a frank realization of the implications of intellectual activities as a basis of power and with a singleness of purpose alien to our more diffuse and random organization. The full effect of their dynamism in the cases of Russia and China particularly has obviously not been felt as yet in the realignment of power.

It is important to bear in mind that intellectual potential is not the possession of one race alone. High mentality, different from mineral resources, favorable relationship to the seas, or other bases of power, can be found in most every race, more or less. The new fact of our time against which national policy must be viewed is this extension into the realm of the intellect, and the inclusion of education and of science as new factors in our status as a nation *vis-a-vis* the world. This places new emphasis on the ancient maxim that knowledge is power. At no time in the past has this been so fundamental.

However, in our *own* country we have been able to realize that this principle goes much further than the sciences or technology alone. We live in a country where we believe in self-government. We have of necessity had to develop great organizations such as our commercial and industrial structures and our vast governmental units. But these function in a society where authority in the last analysis is based on consent. Consequently, we cannot forget that the many facets of human behavior—the many skills and professional competences needed to direct activities, to analyze, understand and improve social, economic and political institutions, and to interpret and explain them—are of the essence of our way of life. In short, the sciences of society and of human behavior are of importance equal to that of the sciences of nature and its physical phenomena.

We must also bear in mind that our whole way of life is on trial. The philosophic dichotomy between East and West indicates the boundaries

of the ideas in conflict. Our intellectual heritage is not only a fundamental element in this conflict but can be in the last analysis the crucial deciding factor. This means that our philosophy of life, our culture, the underlying convictions and value judgments that make us what we are and which dictate what we do, must be a part of our conscious development arising out of the total educational process. These matters which we speak of as the humanities are not merely frosting on the cake, but a dietary necessity. Education must not only meet the demands of a series of specialties, related to the direct bases of power, but also the demands rising out of the fact that in a small but essential way each of us is an agent in the total national effort. In our type of society our contribution does not end with a direct application of our special skills. These must be our indirect contribution. Education must prepare us to do both.

This matter has a particular poignancy at present. We as a people understand far too little of the essence of the special character of our society and of our way of life. We not only need to understand our Western civilization, but to be able to articulate with conviction its basic values. Any American who represents us abroad comes to feel how practical a problem this is. I realize the danger inherent in what I have said. Many others have made the same points. The conclusion I have drawn is that education in our time needs breadth and increased depth in more than one kind of discipline. It is too easy merely to conclude that the implication is that we just keep on doing what we're doing. We must continue to teach some science, some social sciences, and some humanities, and the diet will include performe the necessary educational vitamins.

This, I believe, is not the implication. I am quite persuaded we need much more adequate instruction at all levels in the sciences in a world growing more technological every day. We should, however, not do so at the expense of the breadth of education that life in a democracy makes essential. What we do need to do in all subjects is to pay much more attention to the concept of relevance. We should be sure that as we recognize the peculiar needs of our society for education for these diverse elements of life, that what we teach does in fact contribute to those ends. Intensive analysis and redesign in terms of relevance to the modern world is going on in some subjects. More needs to be done in all fields. The recent large-scale redesign of curriculum and method in the sciences of mathematics, physics, chemistry and biology has as its primary goal the enhanced relevance of these sciences to modern needs and to contemporary life. Equal effort is called for in other areas of the curriculum.

It is against a background such as this that one must think of education as an instrument of national policy. At the same time one needs to recall also that in our society the relationship between education and national policy cannot be direct. If education is to serve national policy objectives, it will not be by direct mandates emanating from a central place. If we are to preserve the local and institutional autonomy which exists and which we always think is a great virtue, then

the contributions of education to national policy must arise out of an awareness of the contributions that education should and can make to the achievement of national goals. There might seem here to be an impossible contradiction. It might appear that the mere existence of national needs reflected in established national policy might be at times opposed to the aims and objectives and processes of education itself. In actuality, I believe this is not necessarily the case. Education exists not only for the benefit of the individual, but also for the benefit of our society; and if national policy is based on national requirements, it is indeed the function of education to meet those requirements. The conflict, I believe, is not here. If any conflict were to arise, it would seem to me to arise not in the dictation as to what the national requirements are, but as to the manner in which they shall be achieved.

There arise, it seems to me, two responsibilities for our educational forces in this situation. The first is to be alert to identify national needs and to be diligent to meet them aggressively; secondly, to meet them without sacrificing the integrity of the educational process or the independence and autonomy of the educational systems of the nation. In all the manifold ways in which national requirements will impinge on education these guiding principles may assist in getting on with the job, without warping or distorting the proper evolution of our educational system.

With regard to curriculum and content, to which reference was made earlier, much needs to be done. The rate of change in our society and in the role and relationship of our nation to the world at large is such that an accompanying readjustment of educational goals and content should occur with vastly less lead time than at present. The recent defense education act can be thought of as an indication of impatience in this regard. Increased excellence in the scientific subjects, increased attention to the languages of other countries and to knowledge about whole new continents have emerged as necessities. Education should lead in this regard and not be led, even though federal funds may be needed to provide the means. But in meeting these pressing needs it is the responsibility of educators to maintain the balance in educational development for the individual that our special society requires.

It would be tedious and unnecessary at this point to mention the many ways in which education and the national requirements come together, and find expression in concrete relationships. The list would include contract research, special training programs for government personnel, including military personnel, ROTC programs, loan of personnel for advisory services to the government, programs of direct cultural and educational assistance abroad, and many others. These have been integrated into the activities of higher educational institutions and the problems of adjustment at least identified, if not always solved. In all of these cases it seems possible to assert that there is a relationship between the success of the enterprise and the extent to which it makes good sense from the point of view of the fundamental role of education. In all cases, it

seems to me, unless the objective is consistent with sound educational practice then even the objective is jeopardized.

This would appear to be an important point to bear in mind as national policy demands more and more from education. As the fact that our challenge from abroad becomes recognized more and more as a challenge in the field of intellectual matters, these demands are bound to grow. More emphasis will no doubt be placed on the stimulation and further support of various areas of special significance to our country and will find expression in national legislation.

In particular, the challenge in the field of cultural affairs abroad seems destined to demand more and more effort, with clear relationships to national policy. The educational forces of the country will perform the instrumentality which must carry the burden. This will involve more training in American institutions for foreign nationals, more Americans serving abroad, and more direct institutional relationships, if indeed this challenge is to be met successfully. Recent indications of increasing activities of this nature by the communist countries will undoubtedly tend to accelerate our own programs.

Education in our country can and will meet the necessary challenges if its forces are alert to the pressing national needs. It can be done without jeopardy to the integrity of the educational process if reasonable vigilance is exercised. I have, in fact, less concern that the demands of national needs, emanating from federal programs, will threaten this integrity than that educators themselves may abdicate their responsibility for maintaining this integrity through hasty and ill-considered actions. In any case, education is now a major factor in national policy. Whether this new dimension of responsibility is met properly will, I believe, depend more on the wisdom of educational leadership than upon the Congress or the government.

Finally, I should like to add that this new emergence of intellectual matters as prime factors in national welfare and security indicates a job of public relations. Our society is even yet not notably appreciative of intellectual excellence. It is not a primary characteristic of our culture. A greater awareness of the importance of such matters may become the first requirement for adequate progress in the development of sufficiently high excellence in sufficient quantity.

It is perhaps unfortunate that security and competition must loom so large in this context since clearly the demands of a rapidly evolving society would require the same concern in any event. But whether we look at the more immediate or more remote national needs we shall have to depend more and more on persons of high training and intellectual capacity. In some manner or other this need for public awareness must be met. For in the new balance of power of the future the weights will be very largely of an intellectual nature.

So far in this article these problems have been discussed in generalities. It may be useful to be more specific in a couple of cases. As an example let me take a problem in postgraduate education.

In the sciences, we are all aware of the extraordinary emphasis on research in our day. Federal expenditures for research and development have increased by a factor of 45 to one in less than two decades. Industry has expanded its efforts in this field also by an almost equal factor. Yet in the production of persons trained to the doctorate our training institutions have scarcely more than doubled their output in the same period. There is probably no known direct equation between research and development expenditures and the number of persons of advanced training needed, but if there were I am sure the factor resulting would be substantially greater than two to one for two decades.

How then does our society provide for its needs in this matter in which national policy is so directly and basically evident? Traditionally it has been by the device of using graduate students as teaching assistants and thus providing for the support of doctoral candidates. Even the advent of the National Science Foundation fellowships has not altered this picture much. These fellowships support perhaps four per cent of graduate students in their fields. Graduate assistantships supply the greatest part of the support of graduate students. But the number of such opportunities have no relation at all, nor do they reflect in any way the requirements of our society for persons trained to advanced levels in the sciences. The number of graduate assistantships is dependent on quite other circumstances which bear no rational relationship with federal expenditures for research and development. There would seem to be here a clear need for educational leadership to find new social inventions to meet this problem. The simple expansion of federal fellowship programs of the traditional type may not be the answer. There are inherent dangers in such a movement. To be effective any such new inventions must be sound educationally as well as in the production of the necessary additional personnel.

Finally, I should like to dwell just a little more on education in its relation to foreign policy, in one respect only. It is now quite clear that cultural interchange has been recognized as an instrumentality by the communist countries. Their advent into this field is only something over four years old, but the magnitude of their effort and its rate of expansion are becoming discernible. This effort includes large scholarship and fellowship programs, gifts of whole educational institutions in the technical fields, export of specialized personnel, offers of advanced training to foreign teachers and professors, and other devices.

The important stake here is the orientation of those many hundreds of people whose final commitment to the East or the West may affect the balance of power so that all else loses significance. There are two important considerations here. The one is the image of the United States and the Western Democracies which affect their thinking and the other is the extent to which allegiance to the one side or the other will promise to realize for them their own aspirations as a people. In both of these the educational forces of our society are of high significance.

The danger here is that their forces may be used as direct instrumentalities of policy and this could indeed defeat the primary objective. Only when our educational institutions and their personnel are used for sound educational objectives at home and abroad are they likely to be effective. I am personally persuaded that in this way they can also contribute to a truer image of America and to minimizing the cultural lag of the emerging nations; both of which results have positive relationship to national policy.

In all of these respects it seems to me that our educational processes serve the nation best when education is true to itself, but only if there is a genuine awareness of national needs, and a willingness to meet those needs with initiative and imagination.



## PATTERNS OF DOMINANCE AND CHOICE

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**A**LL EDUCATORS, and this phrase must, by courtesy, include administrators, believe that their work has value for the future. This paper is a series of speculations based upon that belief. These speculations postulate that we have a very large measure of control over future forms of higher education, hence, a series of choices to be made, but that the choices we have before us are not necessarily the ones we think we have.

In order to discuss these areas of choice in the future, it is necessary first to describe the base on which the future rests. I therefore offer a present view of higher education. This view is not statistical but is rather couched in terms of attitudes and purposes.

Before I set about descriptions I have certain terms of reference to establish that are necessary to this paper because they represent variables which will eventually modify the descriptions.

My first one is that the American secondary school as of today has been deprived of its mobility. By mobility I mean the freedom to set new goals, plan new programs, accept new responsibilities—in other words, the freedom to develop diverse forms within the broad framework of secondary education.

I read and hear my evidence in reports, articles, books, speeches, and public documents, all of which now define the purposes of secondary education within terms essentially traditional. These terms acknowledge only two forms of secondary education—one which prepares for higher education, and one which fails to do so and is too often, for this reason and this reason only, denounced.

This definition of the secondary school's role is important for three reasons: first, because it gives to secondary schools as their major task a fixed task; second, because it does not accept any but traditional methods of carrying out that task; third, because it represents or appears to represent public opinion—and public opinion operating through the peculiar political heritage of local control of primary and secondary education has, at least for the time being, established this point of view.

My second term of reference is that although secondary education has lost its capacity to meet new needs with new programs, the need for

diversity is increasing, not diminishing. For nearly 30 years each age group as it has approached the age for entry into the labor force has been given a choice between employment (which for a time emphasized and still includes military employment) and more schooling. For most of the 30 years an expanding system of secondary education supplied the schooling, but as the age of employment rises the burden of supply is shifted to higher education. As the age groups increase in size, the burden may become tremendous and may assume forms that cannot now be foreseen.

My third term of reference is to the effect that within higher education the creation of diversity has become a task for the universities. Undergraduate colleges have found as a practical matter that they cannot retain form and status as colleges and offer a diverse program.

If they try, they face the choice of moving towards university status, which many of them have done, or of scattering and enfeebling their programs and moving towards a kind of vocational junior college status, which others have done. On the other hand, universities have been able to develop new programs, to change old ones, and even to experiment in defining new tasks for education.

My fourth term of reference is that the university, responding to new problems, has expanded its influence along with its size and has now replaced the undergraduate college as the dominant unit in higher education. This statement is probably provable statistically, but such proof is not really germane to the point.

Dominance in this case means domination of educational thought, the setting of academic patterns, determination of intellectual goals, the capacity to create an atmosphere of stability or of change. Numerical dominance is unimportant.

I offer two observations as illustrations of my meaning. The first one has to do with a program now operated by the College Entrance Examination Board, called the Advanced Placement Program, which is a program of examinations for giving college credit for advanced work done in secondary school. This program was begun about six years ago as an idea of the late Gordon Chalmers, president of Kenyon College. It was supported by a number of undergraduate colleges and for the first two years of operation was often called the "Kenyon Program." The larger university colleges were not consulted in planning and were at the outset excluded from having anything to do with operations. The program has been a tremendous success. It is operating in over 400 secondary schools and is supported by faculty action in at least 200 colleges. Twelve thousand students are expected to take the examinations this May.

If it had worked out as planned, the students attracted by the plan would have entered the colleges which sponsored it. By now their numbers would have solved the enrollment problems of these colleges. But that is not what has happened. It has become essentially a program for students entering the undergraduate colleges of the major universities, and is apparently continuing to develop in that pattern.

The second observation came out of my recent return to the selection committee of a national fellowship program after an absence of eight years. Here, I was immediately struck by the extent to which the proportion of superior candidates from the smaller colleges had shrunk while the candidates from the university colleges had increased in both number and quality.

It must be observed that this was, in one interpretation, a purchased dominance because of the number of these superior candidates who had been on scholarships all through college, but it was no less real because it was purchased. This dominance may explain some of the difficulties that the American undergraduate college and particularly the small college is encountering today.

My fifth term of reference is investment. The rate of investment in education, taken as a function of national wealth in any given year, has probably remained fairly constant for most of this century, but it has gone through several phases.

In its first phase, the investment was largely private philanthropy which went to the support of private higher education, particularly to that segment of it which we now think of as the prestige institutions. This meant for the most part universities in being, or colleges with the advantage of location and leadership which would enable them to develop into universities. This phase of support began before the turn of the century and continued until halted abruptly by the depression.

During the depression the source of funds for investment in education shifted from private to public. The incidence of investment shifted also from higher education to secondary education to make possible the near approach to the goal of universal secondary education. This investment period continued through the 30s and closed with the outbreak of the war. Had it not been for that tragedy we might well have seen still further developments in that area, and be dealing today with a different set of patterns.

Since the war, the investment has shifted again. Tax-supported higher education, which for years received only a meager share of the annual new investment, is enjoying a larger share; secondary education is limping at a subsistence level. Private philanthropy, on the other hand, no longer gives direct support to private higher education at the rate it once did.

But a new form of investment for both private and public funds has appeared in the area of research. Here, in effect, there is more money available than can be absorbed by universities, with the result that we are witnessing the creating of great research activities very like those attached to universities but under corporate control.

This research investment is in a sense an indirect investment in education, but it is having a profound effect upon universities, even to the extent of shaping their programs and of contributing to, perhaps even producing, the position of dominance already referred to.

In addition to these terms of reference, I have a point of nomenclature.

We have always recognized these forms of support of higher education by using the terms "endowed," "church-related," or "tax-supported." But, in the light of present circumstances, these identifications have lost meaning. Neither endowment nor church relationship now takes the place of tuition support. If we wish to identify in terms of present status and future problems we must identify our colleges and universities as either tuition-supported or tax-supported.

With these preliminary comments out of the way, I now offer an impressionistic description of our existing organization of higher education.

In this view, our higher education is divided into three major university groupings plus one embryonic grouping. By a university grouping, I mean a number of dominant universities within a geographical region operating with generally similar programs and standards, drawing students in part directly from secondary schools and in part from undergraduate colleges which are really feeder colleges. Feeder colleges are independent of universities as to their finance and control, but follow their lead as to programs and standards.

The oldest of such university groupings is to be found on the eastern seaboard. It is dominated by universities which are tuition-supported. These universities represent a very heavy concentration of professional and graduate schools, accounting between them for more than half of all the professional and graduate work enrollment in the United States. About half of the enrollment in these advanced programs comes from the undergraduate colleges of these universities, the remaining half from feeder colleges.

In this grouping, the feeder colleges are predominantly tuition-supported. They compete for their students on much the same terms as the universities they feed, and it is one of the marks of this grouping that their ability to attract students is directly related to their ability to prepare for later university entrance. Colleges that are not successful in this respect are having serious problems in getting the quality of student body they would like to have, which means that they are caught in a self-perpetuating cycle of enrollment problems.

There are, of course, numerous tax-supported institutions in this eastern grouping, but it is a notable fact that their operations, programs, and standards follow the pattern set by the dominating universities. These tax-supported institutions have developed relatively slowly. The state universities, with only one major exception, have been slow in their development of graduate and professional programs; the teachers colleges have been held rigorously to their original function and have not been permitted to expand into regional colleges; and the junior colleges and community colleges have barely begun to make their appearance.

Enrollments in the eastern region are on the whole stabilized. Very few institutions are operating far below capacity and there is not a large number of unfilled vacancies. There is pressure for expansion on a few institutions, but in general it is being resisted. Most of the plans for expansion are being made by tax-supported institutions.

Perhaps because of this stability, it is one of the characteristics of the eastern region that relationships between the secondary schools and the universities are under heavy strain. In general, within this grouping the universities and their feeder colleges operate on a basis of selective admission. This is conducted on several different standards, but always by methods which emphasize quality of preparation and results of objective tests. In this as in other respects, the tax-supported institutions of the region follow the procedure established by the tuition-supported institutions.

Much of the current criticism of secondary education is centered in this region. Most of the efforts to redraw the secondary school curriculum in terms of specific college entrance programs are taking place here. And, on the other hand, although the secondary schools are attempting to meet university requirements, they are having serious problems in getting the necessary guarantees with respect to the acceptance of their graduates.

The second large grouping of universities, the middle western, has characteristics markedly different from those of the East. In the first place, despite the fact that there are important tuition-supported universities in the area, the dominant university pattern is that of tax support. In the second place, while the middle western universities have sizeable and excellent graduate and professional programs, it is probably true that they derive a great deal of their stature from their large and diverse undergraduate offerings. In the third place, within this grouping of dominant tax-supported universities there is a numerically large group of tuition-supported undergraduate colleges. And, finally, in this region, neither capacity nor enrollments have been stabilized.

The tax-supported institutions have been decreasing their capacity steadily and are continuing to do so, even to the extent of creating new universities out of institutions that were formerly specialized schools or teachers colleges. Thus, each year there are vacancies within tax-supported higher education, but each year as the former year's vacancies are filled new ones are created. But while this development is going on, the tuition-supported colleges, which by reason of capital shortages have increased their capacity very little, are operating at a fairly steady vacancy rate.

Because there are vacancies available each year in the Middle West, there have been no serious problems in pupil placement for the high schools, and very little disposition on the part of the colleges and universities to complain about student preparation. As a result, the school-college relationships are much less difficult than they are in the East, and the schools have something very near to equal partnership in the admissions process.

It is within this pattern that the tuition-supported colleges have their problems. They must compete with tax-supported universities which up until now have offered fairly easy access to college, and they must also compete with their sister tuition-supported colleges and universities in the East which make a strong appeal to those interested in graduate and

professional admission and which on occasion have generous scholarships to offer as an additional lure. As a result, college admission in the Middle West has taken on the form of a compromise in which many of the forms and rituals of selective admission are observed, while within the forms the actual practices often follow the tax-supported pattern of relatively easy access.

The West Coast grouping is perhaps best described as composed of two unequal parts. One part is a relatively small group of tuition-supported and tax-supported universities and colleges oriented towards graduate and professional work, conducting a rigorous system of selective admission, or, to be exact, two distinct rigorous systems of selective admission, one of which depends partly on firm control of the secondary school curriculum while the other is essentially the eastern system. In many ways this group resembles the eastern grouping in its academic strength, conservatism, and stability.

The other part, larger but less influential, is composed of a large group of universities and colleges, mostly tax-supported but including a considerable number of institutions in their lessened emphasis on graduate and professional work, their constant expansion, with its concomitant of the continued filling of existing vacancies and the creation of new ones, their vigorous recruiting and easy access, often within the form of an apparent pattern of selective admission.

Combined with these unusual features is the fact that the West Coast probably represents the heaviest investment of capital in research to be found in the country when university, corporate, and government facilities are considered. On the West Coast we also have the only large-scale program yet devised for drawing pressure away from existing colleges and universities by creating a parallel system of higher education which offers tremendous flexibility on a very large scale in a relatively simple operational pattern.

The West Coast grouping, finally, is almost completely self-contained. There is some, but not much, migration of students and faculty members in both directions to and from other parts of the country, but the pattern on the whole seems to be set in West Coast terms.

The fourth university grouping is southern. It is hard to describe this grouping for it is still in a forming stage in which the dominant unit of higher education remains the undergraduate college. In this pattern a true grouping of a number of universities oriented towards graduate and professional studies and dominant enough to impose their patterns of organization and their standards upon the remainder of the southern structure of higher education remains a development that can be foreseen but that still falls short of full achievement.

In the light of this generalization several comments are pertinent. First, the southern states produce annually a sizeable crop of excellent students of university caliber, many of whom are attracted to the eastern university grouping for their undergraduate and graduate work. Second, the South has a sizeable nucleus of excellent secondary schools, colleges, and

universities, which, if they were concentrated in a smaller geographical region, would form a university grouping of real stature.

Third, the capital shortages which in other parts of the country bear heavily on tuition-supported colleges affect both tuition-supported and tax-supported institutions in the South. To put it another way, the basic problem which has yet to be overcome in the South is the cost of enlarging the total enterprise of education to form a base strong enough to support a university grouping.

Fourth, the problem of development has been masked and hindered over the years, in part by the fact that southern students have been accommodated in other regions for their college and university work. This masking effect will diminish as university groupings in other sections of the country tend to fill with students and to force the South back upon its own resources. Viewed in this light, segregation is a matter of some importance, not as a moral or ethical issue but as a self-perpetuating economic drain which slows educational development at all levels by diffusing the capital available for educational growth.

Having examined a view of our educational structure, we should now consider what changes may be produced by events of the foreseeable years ahead and what choices we may have within these changes.

There will be changes within secondary education but they will be changes to consolidate and strengthen it for its task. These changes will fall into two major groupings.

First we can expect a major movement towards intensified counseling and guidance. There will be more attention paid to the factors outside of school which affect the individual as a student and as a person. In the experimental project now being carried on in New York City's Junior High School 43, it already seems clear that a social service program which extends into the home and the community can produce an important change in academic motivations and interests, and reveal abilities and talents which would otherwise have lain dormant, perhaps throughout the student's whole life.

This experiment, of course, represents a maximum effort to set up a counseling situation which approaches the ideal. Perhaps we cannot hope to expend this much effort in all of our schools, but if present plans are carried out, we will see, and very soon, an attempt to try out the idea on a large scale. Parenthetically, the 43 project has produced a marked decrease in the juvenile delinquency rate in one of New York's problem areas, and this of itself may bring additional support to this idea.

Counseling and guidance will also move towards early, careful analysis of individual strengths and weaknesses as a guide to long-range planning. For this it may be necessary to develop new guidance instruments and techniques and it will certainly be necessary to make better use of the ones we have. But these things can be done, and if they are done they will involve the schools much more deeply in the actual process of the selection of students for college entrance.

The second change will be the development of programs of advanced

and accelerated courses offered in secondary schools, probably developing in some communities into separate honor schools. In general they will cover full college preparation by the end of the present eleventh grade, and a full year of college-level work by the end of the twelfth grade. The development of such programs would presuppose college willingness to allow credit for the college-level work, but this now seems attainable although it would not have been acceptable 10 years ago.

Neither of these predictions is a new idea, and both of them are now operating on a limited scale. They have proven merits, and they will certainly be extended. Both will go far to ease the relations between secondary schools and colleges.

With respect to higher education we can expect that the developments in secondary schools will have two direct effects and one indirect effect. In one direct effect, the number of students entering college will increase because of improved preparation. That is, better counseling and guidance will help a larger percentage of high school students to prepare for college, and this effect will be quite unrelated to population increase.

In its second effect, better prepared students will do better work in college and will tend to remain through to completion of the course. This will mean that colleges will have larger enrollments, in part because they will increase their holding power and have a larger percentage of juniors and seniors, which means making better use of existing facilities in the junior and senior years of college.

Curiously enough this use need not produce much additional expense. These are now the most expensive sections of our college programs but this is largely because they are not used to capacity. At capacity use their costs per student will come down and we will find that we now have more resources than we thought we had.

I mentioned also an indirect effect. This is the effect that as students bring better preparation, remain in college longer, and make fuller use of facilities, standards go up.

Rising standards in any educational system tend to cut two ways. They select and hold strong students, creating an increasingly homogenous ability grouping within the student body. In turn the capacity of these students creates a demand for opportunities to go farther and deeper in studies.

This demand is met initially by crowding existing programs, then ultimately by lengthening the time necessary for completion. This has happened long since in the professional fields related to health, has happened recently in the sciences, and appears to be happening with respect to training in the field of management. The process in time produces a group of institutions specialized in the offering of programs of great depth and solidity with advanced study and research as announced institutional goals—in other words, universities or strong supporting colleges.

On the other side of the coin, rising standards in a system tend to force weaker students towards educational levels where they can work more comfortably. For such students the fact that their educational goals are

limited by their capacity is not as important as the fact that they must have educational goals. At present our system falls short of providing adequate goals for its marginal students with the result that a tragically large number drop out without having reached any goal. When, in a single system, standards are forced so high and goals are so restricted that only the ablest students can meet them, the system itself is on the way to intellectual stratification and the formation of an elite.

The alternative to eventual stratification is to form a dual system, and this, actually, is what we have done. Our higher education is composed of two parallel divisions, each four years in length and very similar in program, in outward appearance, and in announced purpose.

In one segment of the system, the students ordinarily continue through all four years and over half of them continue on for further formal study. This segment is tied to our dominant universities, and to the colleges which send students to them. It is the segment which prepares for our professions, for management, for teaching, for scholarship and research, and for the higher reaches of government service.

In the other segment, only about one-fourth of the students stay all the way through the four years, and few of them go beyond. It is this segment which prepares trained men and women with technical skill and the capacity to work as specialists within a society which has an almost unlimited need for specialists. Most junior colleges and community colleges are part of this enterprise and this is generally recognized. But many four-year colleges, including some that are very large and complex, are also in this category.

Until now the differences between these two parallel segments of our system have been masked by their similarities. However, we may now expect that the two segments will begin to pull apart into separate systems marked by differences in methods, programs, and purposes.

In this pulling apart, the dominant universities and their feeder colleges, both tuition-supported and tax-supported, will become more difficult of access than they now are. They will require rigorous and firmly patterned preparation, probably somewhat beyond the present mean preparation now required for college entrance.

Some form of entrance examination will be required by all. Admission of students will be a selective process and the secondary schools will have a large share of the responsibility for the final decision. Emphasis will be on proven intellectual capacity and interest in advanced study. Programs will be planned as combinations of undergraduate and graduate or professional study averaging six years in length, and students who are not interested in such programs will be discouraged from entering. Because of the care used in admission, plus the high requirements, student mortality will be low. This will represent a marked change from the present situation of some tax-supported universities.

Instruction will move in the direction of aiding the student to use the institution's resources to teach himself. Independent study will form a part of the curriculum as early as the first or second year of college.

Auxiliary methods of instruction in the form of taped lectures, films, and closed circuit television may be used as instructional resources but will not replace student-teacher contacts. Costs will probably be high, but student aid in the form of loans and scholarships will be available and carefully administered in relation to need. These institutions will, in short, be even more oriented towards advanced study, professional preparation, and research than they now are.

The institutions concerned primarily with general education, with provision of opportunity in a variety of fields, and with specialized training, particularly in semiprofessional and subprofessional areas, will by contrast be relatively easy of access and will handle their admissions in terms of minimum entrance requirements.

Schools will work with these colleges on student admissions but will not be required to accept responsibility for the student's success in his studies. Programs will be of varying length, but none of less than one year nor more than four, and some of the four-year programs leading to degrees may be almost completely elective with little or no concentration or specific preparation for any occupation or further study.

Instruction may take a variety of forms and may include, particularly where the learning of skills and techniques is involved, considerable direct instruction through films, tapes, and television circuits. Some classes may be conducted entirely through use of recorded materials, with teacher's aides taking care of the routines of attendance and assignments.

Student mortality will tend to be high and this will be expected. Student personnel programs will emphasize guidance and counseling and remedial instruction. Costs to the students will be low, and the principal forms of student aid will be through short-term loans and work opportunities.

In this pattern of higher education it will be necessary to provide opportunities to move between the two systems. This will always be possible, but transfer may be more difficult than it now is and will probably require some testing with respect to interests, achievements, and motivation.

Some institutions, particularly those in large cities, will conduct work on both levels. Some institutions will themselves move from one grouping to the other, depending on their resources, the students available, and the type of program they are best fitted to offer.

It is interesting to speculate on how students may be divided between these groupings. If we assume that standards for entrance to the university grouping will remain where they are, which for the whole country is about at the seventy-fifth percentile of ability within the age group, then that group in 10 to 15 years will be about as large as the total enrollment in higher education today and in 20 years will be larger.

The terminal education group will in any given year be as large as this university group, starting in 10 years or perhaps less. This balance in enrollments will represent a relative decrease for the size of the university grouping, which with its feeder colleges today accounts for about

60 per cent of enrollments, and a corresponding relative increase for the terminal group.

The prediction of balance in enrollment between two divergent forms of higher education is in effect a prediction of the results of choices that are being made now, by us. These choices are in the resolution of the clash between the totally new concept of mass higher education, and the traditional concept of university dominance over higher education which has been so recently established in our system.

In trying to estimate the probable results of this clash, we have some of our own recent educational history as a guide, for it is now about 40 years since the idea of mass secondary education—then totally new—encountered the entrenched concept of secondary education as college preparation. In the end, both have won. Mass education is numerically stronger with its own curricular arrangements, but it has lost in a bid to control the curriculum. College preparation, numerically weaker, has been established as the primary task and is in the intellectual ascendancy.

Over a long time, which in this case is defined as a time beyond our own probable life span, the history of our secondary schools may well be repeated in our colleges and universities. Over the shorter term—10 to 20 years—we may expect the balance already suggested. Over a longer term the mass education function will probably become numerically dominant.

The question of intellectual control cannot now be predicted, but eventually it will be the central factor in the shaping of our educational future. The appeals of mass education are powerful and they have a quick political value which has been noted by our politicians. The pressure to support its expansion at the cost of graduate study and research will be strong—is already strong.

Yet the values which mass education brings are not the same values we seek in our graduate schools and our research enterprises. Herein, finally, are the principal choices to be accepted or rejected.

If we emphasize rigorous education for high ability students, we lose the opportunities that mass education brings; and if we stress mass education, we may lose the endless adventure of discovery. Our problem is that our choices are not choices between educational theories, not economic, or industrial, or political, but always, ultimately, choices between human values. So long as we know this and invest wisely in them, we cannot be wrong.



## COLLEGE TEACHING IN TODAY'S WORLD

**The Honorable Hubert H. Humphrey**

*United States Senator from Minnesota*

CLEARLY ONE OF THE main streams of Western thought—cradled in the life of the great Western colleges and universities—has been the principle of balance, of equilibrium, of symmetry. How vital it is today that this Aristotelian principle should shape American planning and policy in all areas of our political, economic, and cultural life. Yet how far from balanced, how free from distortion many of our national policies and practices are today.

There is, for example, a gross underemphasis on the need for expanded national productivity, particularly in the *public service* area. Domestically we are currently failing to assign a sufficiently high priority to housing, to school and hospital construction, to basic research, to education in general. There is a striking dependence today on short-run, makeshift solutions, an unwillingness to program boldly ahead, and a fixed idea that, while corporate planning is somehow *good*, government programming is invariably *bad*.

In our foreign policy we have developed a dangerously distorted pattern—a general overemphasis on the importance of preserving the *status quo*, a habit of over-reaction to moves of the Soviet bloc and, in recent years, a failure to institute broad but flexible programs to deal with the infinitely complex problems of a world in the process of rapid and often violent change. A *crisis mentality* has developed—a pattern of drift, crisis and drift again. Each flare-up is met by sudden, hasty, improvisation—followed almost invariably by an almost total relapse into drift again.

Throughout the vast emergent areas of Asia and Africa, we have too often sought only defensive military alliances. We have, thereby, missed sweeping opportunities to *win* the Cold War by taking the struggle to the higher plane on which we have greatest chance of success—the fight against poverty, hunger and disease, the struggle for knowledge, security, and human dignity.

We seem forever on the defensive, forever *standing firm*, forever reacting to a new Soviet-created crisis. Standing on the defensive, we have failed to come to grips with the underlying economic and social problems of the world on which communism feeds and grows. Actually many, and

indeed most, of the problems that beset mankind today would be with us and require attention and solution even if there were no communist threat. While the emergent peoples of the world are vitally interested in the great East-West struggle, they are primarily engrossed in their own struggle to find a way up—at almost any cost—from the mire of famine and disease, from the filth and rags of *native quarters*, from degrading ignorance, from their outcaste, almost subhuman status assigned to them by a civilization which stumbled into the industrial revolution two or three centuries before they did.

There are three words—people, progress and peace—that belong to the lexicon of democracy, and that uniquely represent the democratic tradition. They are powerful words—so important and so powerful that the enemies of freedom have attempted to take them to their bosoms—literally to steal them away. There is a plethora of Communist *Peoples Republics* that are neither for the people nor republican in form. The Communists are determined to demonstrate to the new and rising nations that communism means economic and social progress.

And we have permitted the Communists very nearly to appropriate the word "peace"—to pose as the peacemakers and to tag us with the label of warmongers. Yet democracy, or a society, based on the consent of the governed, should have as its trademark, its identification, people, progress and peace. Like it or not, the Communists have been getting away with ideological piracy. They have been quicker than some of our own leaders to recognize the real battleground of the world—the struggle for men's minds—and swifter to understand the surging drives that are toppling kings and dictators and colonialist powers throughout Asia, Africa and Latin America.

But we do not know our own strength! At least we have failed to mobilize it!

We urgently need to design and launch a broad-gauged and affirmative foreign policy on the natural strengths of our nation—yes, to harness to the plow of foreign policy our tremendous industrial capacity, our dominant capital, our technical knowledge, our agricultural abundance, our wealth of trained educators, agriculturists, doctors, scientists, administrators and technicians.

Why have we not done it?

I would suggest that the cause may be found in part in the lack of status of the intellectual in our midst, and in the habit which a nation of producers has developed of judging the worth of a man or of an idea in terms of annual salary or dollar cost.

There appears today to be too narrow a circle from which the political leadership of the country tends to draw its advice and ideas. Valuable as may be the counsel of financiers and manufacturers and military officers—and the experience of these groups of men is useful and valuable—the government's fundamental policy decisions might well be predicated upon a wider base. I am convinced that the counsel of men and women broadly representative of agriculture, of labor, of the press, of

the scientific community, of the legal and medical professions, of the clergy, of the teaching profession—yes, and of the arts—should be sought out and given intense consideration by the responsible political leaders of the nation. Firmer, stronger, more freely-flowing lines of communication must be set up to channel the ideas and enthusiasms of intellectual America into the halls of Congress and into the mind and heart of each man who occupies the office of the Presidency.

I am not one of those who believe that all the problems of the world can be solved by education. But I am deeply impressed with the value and the power of education—its value as an end in itself, for its key role in the freeing of man's spirit and the enrichment of his life—and its power to shape the destinies of nations.

There is increased public attention to education today—reflected in its most dramatic form in the passage by the Congress of the National Defense Education Act last year. Congress in this Act explicitly recognized the worth and the importance of a broad-based educational system—and did not plunge the country into a lopsided effort in behalf of scientific and technical training alone. We specifically encouraged young people to go into teaching, through a provision permitting the writing off of a portion of the federally-guaranteed college student loan. We singled out language training for special emphasis because of the really appalling gaps in our language abilities. But we made a conscious effort to write legislation which would preserve the essentially balanced and symmetrical character of American education.

Because I am a former college teacher myself, and because I have consciously made an effort to keep open the lines of communication between the community of scholars and the political leadership of the nation, perhaps I may make one or two suggestions to my respected friends in the colleges and universities.

I would like to recommend a few ideas for feeding some of the brain-power of the American educational system into the machinery of American foreign policy.

One suggestion which I respectfully advance is that more of our American colleges and universities should encourage searching and frankest discussion and debate of current political, economic and social problems. While there is a role for the colleges to play as *islands of contemplation*, there is a concurrent responsibility to prepare the individual for the day to day participation that the democratic process requires.

Secondly, I would urge colleges and universities to resist the demands that we cut down on our efforts to provide liberal education in favor of more training of scientists and engineers. To be sure, we need more scientists and engineers! But I am of the opinion that we can afford an educational establishment great enough to train all the scientists and engineers we can conceivably use, *without* cutting back on the vital effort toward liberal education. They are not mutually exclusive at all.

I have only one suggestion to make insofar as the college curriculum

is concerned. There is a need, I feel as a man in public life, for a much clearer understanding on the part of college graduates of the main-springs of national power and the motivations of national conduct. Too often a student can emerge from a series of courses in economics and history and government without a real understanding of their interrelationship, without making the kind of synthesis that will prepare him to face and help to solve the problems of his society and his nation.

These are modest suggestions, and humbly put. For I have profound respect for the character and the achievements of American higher education. Americans take great pride in the vigor, the stability, and the integrity of our colleges and universities.

But my principal question is not how we can improve our American educational system—but rather what we can do to more fully utilize the great example and the great strength of American education in a more constructive and affirmative foreign policy. The works of peace—as well as the words of peace—are imperatives in American foreign policy.

Yes, we must broaden and intensify the existing programs for the use and distribution of our vast food abundance. The generous and planned use of food and fiber has already made an historic contribution to the social and economic well-being of many nations. This is the national effort I call Food for Peace. It can be the foundation for a series of works of peace.

A second and parallel effort is in preparation—Health for Peace. I have joined with Senator Lister Hill of Alabama in proposing an International Health and Medical Research Act. We are hoping to mobilize the medical and scientific resources of America behind a massive assault on disease, pestilence, malnutrition and pain.

I invite consideration of a third major work of peace—what I shall call an *Education for Peace* program.

If education has been one of our cherished American ideals, it is also one of the deepest hopes and needs of people everywhere. In Sicily there are towns where the farmers after a long day in the fields will go to school for three hours a night, five nights a week, to try to learn to read and write. In India, young children, lacking even paper and pencils, squat for hours in a makeshift schoolroom and never take their eager eyes off the teachers. In Haiti parents have literally sold the fillings out of their teeth to get money for their children to go to school.

Education is a powerful personal ideal to people in the underdeveloped countries. It is also indispensable to their economic progress and national independence. At one time it was the rather simple belief that the reason some countries were poor and laggard was simply that they lacked necessary capital and know-how. But we are coming to understand that money and techniques are not enough.

The one resource most of the needy countries have in ample quantity is manpower. But it is untrained, unskilled manpower. In fact, unless the have-not countries can develop the men needed to make effective

use of the funds and technology provided by the more developed countries, much of the aid will inevitably be wasted—and so it is today.

The Communist leadership has recognized this interrelationship very quickly and has taken vigorous steps accordingly. The achievements of Soviet science have a prodigious educational effort behind them. Throughout the Communist nations new universities are cropping up, new buildings, new laboratories, and very large scholarship programs for talented students. In the student dormitories throughout the Sino-Soviet bloc, thousands, in fact tens of thousands, of university students are studying—from families and remote towns and villages from which, until a few years ago, no one had ever attended a university. It may be that the Communist leaders are creating a potential force of freedom which may some day tear apart the Communist system by educating masses of people. But for the present they are winning the loyalty and deeply felt gratitude of students and parents.

In too many of the countries of the Free World educational systems are impoverished and stagnant. It was in the great countries of the West that the university idea was born and where a great university tradition has been built over the centuries. But some of these schools today are suffering from too much history. They are burdened with traditionalism. In some cases they are still living and thinking in the seventeenth or eighteenth century.

In the newly independent countries the problem is different. There, without a highly developed educational system and lacking in a scientific and academic tradition, they are often building from scratch. Where they do have universities, they are in too many cases poor imitations of the most antiquated models from western Europe. Their graduates are frequently mistrained in terms of the needs of the country—the result, large numbers of unemployed and unemployable university graduates forming a core of disgruntled, resentful intellectuals.

In both old and new free world countries when it comes time to divide up the budget, the Ministry of Education is too frequently put at the end of the line. To cite just one case in point, in Greece, a country with some seven million people, the government offers about 350 scholarships a year to excellent graduates of secondary schools to go on to the university. But across the border in Communist Yugoslavia, with roughly double the Greek population, that government offers more than 30,000 scholarships a year for students to go to the university!

It is only a question of time before that educational gap will begin to create an economic, military, and political power gap.

We are, of course, not completely ignoring this educational gap. On a limited scale the United States has been giving some help to education and educational exchanges internationally. The Fulbright program has been a great act of creative statesmanship. It has brought our academic community into closer contact with the world of foreign scholarship than ever before. Through our atomic energy program we are training foreign scientists in our research institutions. In our economic development

programs we are bringing foreign technicians here every year for training. The State Department is bringing over leaders in many fields. And, of course, our great private foundations have been giving assistance to foreign educational institutions and have been assisting educational and scientific exchange for many years. All these efforts are to be applauded.

But all these efforts together fall far short of the need and the opportunity. Their first defect is that they are too small in scale.

Their second defect is that they are focused on only narrow details of the total problem of free world educational development—namely, exchange activity, technical and vocational training. They have not emphasized the general strengthening and expansion of the foreign educational systems themselves—the indigenous schools and universities.

The third defect is that what we have done has been undertaken in a spasmodic, left-handed, and halfhearted manner totally lacking in drama and impact.

I propose that we launch a broad program of world educational development—a plan of Education for Peace.

The first step would be for the Congress of the United States to declare to the free world that we share their beliefs in the values of education and that we are ready to work with them in building up their own educational systems to train their own people. We should declare our readiness to support a 10-year, three billion dollar effort for world-wide development of democratic education—on condition only that our friends bring to us sound plans for self-help and mutual help. We do not propose to interfere in the control of direction of their educational systems; they should and must direct their own patterns of educational growth.

The second step should be for us to draw together the many loose ends and separate efforts we are now supporting into one agency in Washington. This body—perhaps in the form of a quasi-independent International Educational Development Foundation—would be responsible for leadership and focus in our international educational efforts. It is important that such an agency stand on its own feet—not as a subordinate part of a propaganda program, nor of a military program, nor even of an economic development program. In its long-term potentiality for American prosperity and security, and for the strength and stability of free nations everywhere, such an education effort would be second to none of the other assistance programs we are supporting. It should therefore be not only visible but prominent among our international agencies.

But what about the money! Where are funds of this magnitude to be found? If it were necessary to propose the appropriation of additional dollars to this effort, I would still recommend this step because I am convinced of the importance of education for peace and progress.

But this may not be necessary. As a result of the major programs of assistance in food and materials which the United States has sold to friendly nations in the past, we now own considerable balances of foreign currencies abroad. The present total is in the neighborhood of

two billion dollars, and the total is increasing as our food shipments and other kinds of help continue. By agreement with the recipient countries, these funds can be used only for mutually agreed upon development projects. My recommendation is that we earmark a significant portion of these funds specifically for educational development.

In addition, we now have made several billion dollars worth of loans to allied countries which are repayable in foreign currencies. I recommend that we also earmark a portion of these loan repayments for educational purposes. Such funds may not alone be enough—for there are several countries, particularly in Africa, where such funds are not available. In those cases, consideration should be given to the appropriation of additional dollar funds.

Now it is obvious that all the educational problems in the world cannot be shouldered by the United States. We have huge educational needs of our own, and these should and must come first. The development of foreign educational systems must be a primary responsibility of each country.

But think of the great gain to the United States and to all mankind if we were to become clearly identified in the eyes of the world with physical symbols of friendship and progress like schools, universities, libraries and laboratories. The program I propose would involve grants for laboratories and facilities, for the endowment of professorships, institutes and research projects. Scholarships and fellowships would be granted after annual competitions in every region, every locality of every recipient country. It is difficult to imagine a more penetrating and meaningful way to identify Americans with individual opportunity, social democracy and international fraternity.

If this proposal is given thoughtful criticism and intelligent support, we may be able to help our country take another long step toward a more balanced and vital foreign policy and eventually a stable, just and serene peace.



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## SOCIAL BALANCE

**John Kenneth Galbraith**

*Professor of Economics, Harvard University*

**T**HE PAST YEAR or two will no doubt have a minor place in our history as the time when we chose to have a serious discussion of education. This discussion had, perhaps, a certain inevitability—like the approach of the Second War or the Great Depression. Deeply disruptive forces had been at work and at some point they were bound to come strongly to our attention. Much importance has been attributed to the first Sputnik—indeed, the word has come to suggest less the Russian searching of space than the American searching of the soul. But, in fact, the Sputnik had much the same precipitating effect as the stock market crash in 1929 or the Japanese attack in 1941. It was less the blow than the fragility of what was struck that caused the attention and created the alarm.

It is to be hoped that this discussion of education since the first Sputnik has done some good. Perhaps it has. But we are entitled to wonder. Three things have kept the results from being as salutary as they might have been.

First of all, we have been living through another era of the tough, practical, hard-headed man. The idealization of this man—the instinctive man-of-action—is a recurrent phenomenon in our society. In recent years we have had an especially severe attack, although, hopefully, one that is now subsiding.

The problems of our time, as indeed those of all time, yield to study, thought and perception. Particular experience rarely provides general qualification. It can be a profound disqualification if it is supposed to qualify the man for unstudied action or snap decision. And this is often the nature of the so-called practical judgment. It is based not on thought, but either on unexamined dogma or surface phenomenon. The first has a very good chance of being wrong. The second almost invariably sacrifices the long run to the short.

The point is well illustrated by the reaction of those who are called hard-headed and practical men in the present Administration to the period since Sputnik. They have expressed dutiful concern about education. That, unfortunately, has been about all. And the reason is that they have a deeper commitment. That is to the paramount importance

of low taxes, low expenditures and a balanced budget. (We may falter and fall but Gad, Sir! we will do it in a financially impeccable way.) There has been no great concern, other than of a purely oral sort, for the oncoming crowd of children which is now taxing our schools and will presently engulf our universities. These are more distant (marginally more distant) phenomena, and anything however slightly removed from the present is in the province of the planner or the theorist.

As I have mentioned, we are coming to the end of the era of the tough-minded, hard-headed man. Perhaps the reason lies partly in the imagery. People may well have begun to wonder if brains should be praised for their resemblance to leather and the head for its value as a blunt instrument. But the more important reason is probably in the nature of the world. Keynes once reminded us that in the long run, we are all dead. It is no longer true. In the long run people are still alive and suffering from the errors of omission of those who declined to look ahead. So it has come about that the practical genius of the springtime is the Charlie Wilson of the fall.

Yet we should not underestimate the residual power of these attitudes. In the last two or three years, they have yielded very little to the proponents of federal aid to education. This was by far our best chance for getting dramatic improvement, especially in the states and localities of greatest need. And, needless to say, the states and localities have their hard-headed men too. They have been busy defeating the school bond issues and opposing the increases in state and local taxes. Some of this is to be attributed to old-fashioned selfishness. However, I find this an understandable and amiable trait as compared with the proud and self-righteous rejection of foresight which has lately been in fashion.

The genuine and valuable concern over education which developed after the Sputnik took flight was also the victim of another of the disturbing tendencies of our time. That is for speech to become almost completely divorced from consequence. President Eisenhower, it has often been said, clearly feels that a long and heartfelt statement of his concern for a problem is a substitute for doing anything about it. In defense of the President, I think it must be said that he faithfully reflects a tendency in the country at large. Once men said what they were going to do. Now, they consider it sufficient to say what should be done. Speech was once a portent of action. It has become a substitute.

As speech has become an end in itself, we have come increasingly to concentrate our energies on the magnificence, or anyhow the grandiloquence of expression. We live in the era of the memorable speech. If a man cannot be practical, he at least can be memorable. I could perhaps enlarge on the components of the memorable speech. Its principal ingredients are fanciful exaggeration, foolish prophecy and silly heroics in about that order of importance, although in recent years there has been increasing resort to extreme piety. But I do not need to go farther. Our concern for education after the Sputnik was partly buried by a crushing avalanche of memorable speeches.

However, there has been a deeper factor in this loss of momentum. It would also stress—this is far from a modest assertion—our continuing failure to see with clarity the relation of education, at different levels, to the economic and social order. Until this is clearly perceived, the case for education will rest on a defective foundation. The passing fear and envy excited by a Soviet technical achievement will be a poor substitute for a secure and permanent base. I should like, in the remainder of this article and with no ambition to be memorable, to deal with the relation of education to economic and social change.

The problem begins with the curious and complex duality of the role of man. Man is a goal—an end himself. We need look no further for justification for his intellectual development or his intellectual adventure. It is for these, or such as these, that he lives. A great many intellectuals, including many educators, have declined to look further for a rationale. If the ultimate purpose of education is agreed, why search for a lesser one?

Yet there is a more vulgar view of man, and it is idle to deny its hold. This regards him as an instrument of production—as a converter of energy, or as a servomechanism, or in a more dignified role as a directing force in productive activity. If the society sets great store by production, as ours so obviously does, then it will set great store by man as an agent of production. And this our society does. We are not at all tolerant of the individual or group whose pursuit of happiness brings him or them into conflict with production. We have no praise for the idle or easygoing workman and certainly none for the featherbedding union.

Yet our view of man as a producer is also an archaic one. Given its endowment of natural resources, the productive power of a country depends on its stock of capital and its supply of labor and on the skill with which these are combined. Both capital and labor have two dimensions—the dimension of quantity and that of quality. Of a steel mill, one needs to know *both* its rated capacity and the efficiency of its blast furnaces, open hearths and rolling mills. And as one wants to know both the quality and the capacity of a mill, so one wants to know not only the size but the quality of a labor force. Along with numbers, are the questions of literacy, skill, discipline, technical guidance and leadership.

In the early years of the Industrial Revolution, it was at least arguable that the decisive factor for an economy was simply the supply of capital. The demands of the early machines on human talent were simple. The supply of clerical, supervisory and administrative talent seemed to be forthcoming more or less automatically. Invention and technological change appeared to be the product of haphazard inspiration and genius. They were not easily related to any specific training or preparation. The evidence for this point of view is not absolute. Adam Smith began the *Wealth of Nations* by attributing the productivity of a nation to the proportion of gainful workers to total population and to "the skill, dexterity and judgment with which [the nation's] labor is generally ap-

plied." But it is not in doubt that from the beginning of modern economic society, the supply of capital had a central fascination for the economist and through him, for the public at large. The total valuation of the nation's capital became the measure of its national wealth. The annual volume of its saving and capital investment became the measure of its growth. It is the annual investment in capital—tangible capital in the form of machinery, plant, generating plant, transmission lines—which remains the measure of our progress.

There can be very little question that this measure is technologically obsolete. We can probably lay it down as a law that in an advancing economic society, human beings gain in importance in relation to the capital with which they are associated. Machine production, paradoxically, diminishes the machine in relation to the man. This is partly because the improvement of capital—what we call technological change—comes increasingly to be one of the recognized paths toward increasing productivity. Technological change is the result not of amassing capital. It is the work of human beings. And increasingly, of course, it is the result of a deliberate and purposeful investment in human beings. For roughly 75 years until the decade 1944-53, national output in the United States had been increasing at the rate of 3.5 per cent a year. Slightly less than half of this can be attributed to crude increases in the stock of capital and to increases in the number of workers. The rest must be imputed to technological advance and to improvements in the abilities and skills of the people who operated the better equipment. The part of the improvement attributable to technological change has been increasing.<sup>1</sup>

Some technological change is unrelated to education. And some of the advance in industrial skills and aptitudes represents a general accommodation by people who are on the job. But we are entitled to attribute much, if not most, of this advance to our investment in people. We almost certainly owe more of our economic gains in the last seven decades to investment in people than to saving and the amassment of capital. And the margin in favor of people is increasing.

To say that investment in people has yet to establish itself in comparison with investment in material capital would be a remarkable understatement. For ages, the road company philosophers have been making the point that people are just as important in their own way as things—and just as worthy as objects of expenditure. And the poets in their audience have been nodding their agreement. The operative consequences have been remarkably slight. On weekdays wealth is still measured by physical capital and progress by the additions thereto.

Part of this can be attributed to the force of tradition. Part must again be credited to our old friend the practical man. That which is inconsistent with established belief is not only untrue but vaguely foolish.

<sup>1</sup> Moses, Abramovitz. *Resources and Output Trends in the United States Since 1870* and Kendrick, John W. *Productivity Trends: Capital and Labor*. Occasional papers 52 and 53 of the National Bureau of Economic Research, New York, 1956.

And you can see capital and you can't see learning. Only the impractical theorist reacts to what he cannot see.

Investment in human capital as opposed to material capital has also been damaged, I think, by the fact that the material calculation is not the only and not the primary justification. Man, to repeat, is an end in himself. We eat for the purposes of improving our productive efficiency. But with even more enthusiasm, we eat to avoid hunger and enjoy the food. Education increases our productivity. It is also a nourishing alternative to ignorance which, like food, has its own enjoyments and rewards. Like food, it is not only an aid to production but a prime object of consumption.

But the very attitudes which caused us to set such store by capital cause us also to accord an inferior role to consumption. It is by saving—refraining from consumption—that the capital stock is increased. Anything that interferes with saving is inferior. Expenditures on education, because they are consumption, get in the way of the higher claims of saving and capital investment.

And let no one suppose for a moment that this is a theoretical argument without operative content. Outlays for education are regularly opposed on the grounds that the community cannot afford them. Even more explicitly, it is said that the high taxes interfere with saving and investment and thus with enterprise and economic health. Education is agreeable and even worthy but it is not a utilitarian or productive employment of resources. The taxes for the new high school, a consumption good, may cost the community a new brewery which is a capital good. This is a horrendous prospect so the community must proceed warily. Those who speak for education have rightly and, I think, wisely insisted that education is both a means and an end. But this has handicapped them in arguing what is ordinarily a superior case on purely economic criteria.

I come now to the final problem in asserting the economic claims of education. It is the most serious. And were I writing a memorable paper, I might even claim that it is the one that will eventually ruin us.

This concerns the profound structural difference in our type of economy between the machinery which provides for material investment and that which provides for investment in human beings. In a private capitalist or market economy, the provision for investment in material capital is integral to the system. When there is a prospect for gain from a particular capital outlay—when the marginal return from an investment exceeds the going return on savings—the investment proceeds more or less automatically. No public decision is ordinarily required. It is not necessary to arrange a specific transfer of funds from some other employment. A very large part of modern investment occurs within the business firm. The latter has a ready-made supply of investment funds from its own earnings.

In contrast, investment in human beings is very largely undertaken by the state. And quite a bit of the remainder is in the domain of pri-

vate conscience and charity. The return to the investment accrues partly to the individual and partly to the community. It is not as in the case of a public utility something on which the investor can levy a claim. Hence support for this investment is dependent on a decision to transfer funds from other uses. If there is an increased need for investment in people or an increased opportunity, there is no automatic process by which it will be recognized or exploited. The need or opportunity must be seen and then a decision must be taken to raise and apply public revenues to the purpose.

We should expect serious faults in machinery so designed. Since the estimate of return from investment in people, unlike the estimate of return in investment in capital, is almost completely subjective, we should expect, or anyhow fear, serious underestimation. The diversion of revenues from other purposes raises the question of who is to supply them. It is also entangled with the question of using taxes to promote greater equality. This would lead us to expect that underestimation would be coupled with underappropriation. And let me remind you that the criterion here is a strictly economic one. The test is whether we are keeping a parity of investment as between people and material capital.

This is a problem that Socialist-Communist countries do not have. In the nature of their organization, resources are in the public sector. They have, I would imagine, grave problems of education but they do not have this problem of subtraction and transfer.

In the spring of 1958 when I was in Poland—a very poor country—I was questioned closely by the students of one of the universities on the rate of pay of students at American colleges and universities. They were surprised when I told them we had no regular student stipends. They wished to know how our students lived. The rector of the university told me afterward that he thought I had disappointed my audience. They had hoped my answers might be useful for purposes of collective bargaining. The fact that rich America did not pay people who studied was a serious blow.

My purpose in these comments was analysis and exposition. I would be running a risk were I to go further. It is the mark of the memorable writer that he courageously outlines a course of action for other people.

But perhaps I may be permitted to suggest one or two consequences—which in any case are sufficiently obvious.

We must recognize that our society has a critical and as yet unsolved problem of investing in people. We can neglect no hopeful and realistic solution. I have urged, not to a rousing chorus of applause, that we should not, as one example, bar any tax which promises to ease the problem. By the same token, all who are interested in education must align themselves strongly on the practical measures for economic stabilization. (I do not have in mind the combination of prayer, incantation and higher interest rates on which the present Administration relies.) Inflation is the implacable enemy of the public sector of the economy.

It means that we must have constantly increasing allocations to the public sector in order to remain even. Especially in the case of states and localities, where revenues are inelastic, this is a source of formidable difficulty.

But most of all I would plead for the utmost self-confidence on the part of those who argue for, and work for, increased investment in education as well as other outlays for productive human capital.

Neither timidity nor an academic inferiority complex should constrain the case for an increasing allocation of resources to these purposes. Those who say it cannot be afforded are not only wrong but must be protected from the consequences of their own error. This latter is of no small importance. While it is well established that the Lord looks after fools and drunk men, he is said not to intervene on behalf of the chronically shortsighted.

## INFORMATION SESSIONS

### *The National Defense Education Act and Current Issues Before Congress\**

**Homer D. Babbidge, Jr.**

*Director, Financial Aid Branch, Division of Higher Education  
U.S. Office of Education, Washington, D. C.*

JUST A FEW MONTHS ago the National Defense Education Act was signed into law. The Act is a complex, comprehensive piece of legislation which may well prove to be one of the most important laws concerning education in our history. Its 10 titles authorize something like one billion dollars over a four-year period for programs of assistance to every level of education, public and private, from the elementary to the graduate school. In the brief span of six months administrative machinery for each of the programs authorized by the Act had been established and most of the funds initially appropriated by Congress were committed.

While it is too early to assess the impact of these programs on education, the enthusiastic interest expressed by educators and the general public alike indicates that the Act does touch on areas of critical need. Those both in and out of government who have worked closely with the development of the Act have great hopes for its success, but that success must depend upon support from Congress. The Act covers a four-year period; a rather brief time in which to accomplish a great deal. Without the necessary funds, progress toward meeting the critical needs for which the programs were designed will be severely hampered.

It is my intention here to report on the four programs provided by the Act which concern higher education. These include loan funds to assist needy, qualified students to continue their education beyond high school; graduate fellowships to expand graduate programs and to encourage more students to prepare for college teaching; institutes for the improvement of the secondary schools of guidance and counseling of gifted students; and modern foreign language institutes and centers for the improvement of instruction in the elementary and secondary schools.

\* The actual title of this paper was "The National Defense Education Act." NOTE: Chairman of Information Session A was CHARLES G. DOBBINS, Staff Associate, American Council on Education, Washington, D. C. A "Resume of Federal Legislation Affecting Higher Education, 86th Congress, 1st Session," by J. L. McCASKILL, Executive Secretary, Legislative Commission, National Education Association, was presented by HARRISON SASSCE, Assistant Director, Legislative Commission, NEA. (Editor's Note: The paper is not reproduced here because it dealt with the immediate legislative situation and is no longer pertinent.)

*Student Loan Program:*

On February 1, 1959, the U. S. Commissioner of Education announced establishment of 1,206 National Defense Student Loan Programs at colleges and universities in every state and territory. These institutions have enrollments of two million students, or 80 per cent of the nation's college enrollment. In almost 500 colleges and universities there are now National Defense Student Loan Programs where there had been no loan program before.

*Graduate Fellowships:*

Selection of 48 graduate fellowship programs involving 160 fellowships was announced on February 5, 1959. These were recommended by a National Advisory Committee appointed by the Commissioner. The Committee made its selection from among 1,040 graduate programs proposed by 169 institutions involving about 6,000 fellowships.

*Counseling and Guidance:*

Many colleges and universities have indicated interest in establishing counseling and guidance institutes, and have submitted detailed proposals for the operation of such institutes.

*Language Development:*

Contracts for modern foreign language summer institutes have been signed with Louisiana State University and the Universities of Colorado, Maine, and Michigan. These four universities were selected from among 232 colleges and universities which expressed interest in holding short-term or long-term institutes for the training of elementary and secondary school teachers of modern foreign languages. The University of Colorado, where the first contract for an institute was made, is receiving applications from teachers from every state at a rate of 100 a day. There are places for 400 in-service teachers at each of the institutes.

The Language Development Program also authorizes funds for research and experimentation in the teaching of languages, for development of basic materials such as dictionaries, textbooks, and audio-visual aids, and for surveys and studies of the status of language instruction in this country.

## Russian Education Re-examined

**Norman P. Auburn**

*President, The University of Akron*

IT BECOMES ALMOST immediately apparent to every American upon his arrival in the Soviet Union that the Kremlin is pinning its faith on education as the means of attaining industrial and agricultural supremacy in its drive for world domination.

The signs are everywhere: people of all ages with their eyes glued to the pages of technical books; eager young students hanging on the words of their teachers as they view historical museums; bookstores and bookstalls in all parts of the cities selling publications at very low prices; university students who crowd around American visitors to practice their newly-learned English.

But by far the most dramatic evidence of the Communists' reliance on education is the immense and imposing complex of 26 buildings which house the Physical Sciences Division of the University of Moscow. Rising 800 feet high on the Lenin Hills, overlooking the Moscow River, the 32-story main structure is the largest building in the Soviet Union. Indeed, it is the largest structure in all of Europe except Paris' Eiffel Tower.

That the disciples of Marxism-Leninism should have erected this structure which overshadowed all other government buildings, including the Kremlin, was all the evidence I needed to convince me that state-controlled education is the Communist party's favorite and number one instrument.

But the thought that entered my mind as I visited the University in 1956 was this: "This may well be the world's most important building. What happens here may determine the course of world history. If Khrushchev is not careful, his emphasis on higher education may be his Achilles' heel." I remembered the saying of John Milton that "books are not absolutely dead things." The young Russians who are now having access to Western literature are bound to have doubts and suspicions about their lot. To study is to think, and to think is to question.

Khrushchev must have had this in mind when he decreed educational reforms some months back. There is no doubt that the schools which the Kremlin has developed since the Revolution have so far succeeded in turning out the technicians and scientists needed to serve the Russian state. There is no doubt that the Russians have accomplished an educational miracle in terms of bringing a high degree of literacy to a hereto-

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NOTE: Chairman of Information Session B was LLOYD E. BLAUCH, Assistant Commissioner for Higher Education, Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

fore largely illiterate population. There is no doubt that to date the Kremlin has accomplished its aims educationally. (This, of course, is no reason for America to try to copy the Russian method.)

But Khrushchev may be fearing he has created a Frankenstein monster. An educational elite may be rising to challenge the Communist party despite the indoctrination in Marxism-Leninism to which all Soviet youth are subjected. This, in my opinion, is why Khrushchev has decreed that all students must henceforth interrupt their studies by manual labor on farms or in the shops.

Of course, it has been said that Khrushchev's motive was to augment a shrinking labor force, shrinking because of the result of the low birth rate during the war. But I believe his prime reason was his fear that the educational elite would conspire to threaten the established order. Even Khrushchev knows that to study is to think and to think is to question.

It will be fascinating to watch developments in the Soviet Union as we continue to re-examine Russian education.

### ***Russian Education Re-examined***

**Ruth Dunbar**

*Education Editor, Chicago Sun-Times*

I BELIEVE THREE THINGS make the Russian schools a tough challenge for us. First they have a tailor-made curriculum, manipulated to serve the needs of the state. Second, they have an amazing network of out-of-school activities for children that combines recreation, education and indoctrination. Third, they have a community respect for education, almost a missionary zeal about education that is unlike anything in America.

Although their curriculum stresses science, they do not neglect other things. They expect every child to master his native language in the 10-year school for example. They require every child to take a foreign language for six years. Although the most popular language is English today, they are moving fast into an area of languages that we don't touch until graduate school. They are introducing the languages of the East, and especially of the uncommitted nations, into some schools starting in the fifth grade.

After the school day ends in Russia, children return to the school or a youth center for the *circles*, which are highly organized clubs having a strong educational purpose. There are physics circles and ballet circles, woodworking circles and tractor circles, radio circles and art circles—in fact almost any kind of circle that represents a socially useful interest of children.

In the circles, children get a chance to develop an interest under skilled adult leadership in a more informal atmosphere than during the day. These are the antidote to the rigidly formal classroom program.

There are many external signs of the interest Russians have in education. For example, there are greeting cards that adults send to children on the opening day of school, for this is a big event. And there is the tradition of the *Teachers Night*, which we saw in Leningrad. The community turned out to honor the teachers at the start of a new school year. They were thanking them for *Sputnik* last fall, making a point of telling the Americans that, with one exception, all those who worked on the first *Sputnik* were young men, products of the Communist schools. And there are the posters which we saw in store windows and even on billboards, urging children to do well in school.

Actually, urging isn't especially necessary, for children know that getting ahead in school is the best way to get a better life in Russia. There, everything seems to combine to push children up the ladder of learning.

### Russian Education Re-examined\*

**Harry C. Kelly**

*Assistant Director for Scientific Personnel and Education  
National Science Foundation, Washington, D. C.*

I HAD THE GOOD fortune to visit the Soviet Union with a group of 10 U.S. Educators. This group formed the first official U.S. team in education to be exchanged under the cultural agreement signed with Russia in 1958. An account of our team's observations in Russia will be published by the U.S. Office of Education. My comments here will be confined to my personal impressions.

I was eager to go to Russia for firsthand observation because programs of the National Science Foundation, designed to improve United States competence in science, were in some measure influenced by Soviet activities. This was especially true of our programs in education in the sciences.

Our visit to the USSR really began before we left this country, and one of my deepest impressions was obtained at a reception at the Soviet Embassy in Washington. This reception was a fairly routine affair except for our hosts' eagerness to have us see a film cartoon for children which was said to be popular in Russia. The cartoon depicted a soccer match

\* The actual title of this paper was "Impressions Of Science Education In The Soviet Union."

between two sets of animals. On one side was a large group of hard-working, cooperative and dedicated, small but rugged, rabbits. Opposite were a smaller group of tall, arrogant, overconfident, overly-independent animals with feet too small for easy stability. Of course the energetic rabbits handily won.

This first strong impression of Soviet determination to excel was reinforced many times during my visit when men and women played the roles of the rabbits. Their battle cry is "Beat America" in industrial and agricultural production, in foreign trade, in political and cultural domination of the world.

Everywhere we went in Russia we were told the same story. Their education is completely designed to prepare their people for service to the state and for political indoctrination. In almost every school we visited we saw the quotation of Lenin: "Without teaching there is no knowledge, without knowledge there is no communism." Or, in other words, education for the State. I tried to find a suitable quotation for us to use to emphasize the great importance we attach to the freedom and dignity of the individual. This quotation from Plato comes close: "Education is to democracy: as fear is to tyranny."

Estimates of recent Russian war losses (1941-1945) are fantastic and have strongly influenced policy in that country's educational system. Some recent estimates place these losses at about 20 million. Eighty-two thousand schools and 334 higher educational institutions were destroyed or badly damaged; 43,000 public libraries were destroyed during the war with about 100 million books a total loss.

I am citing these data in order to indicate that some of the things which had impressed us so strongly should be viewed against such a background in order to show the amazing resiliency of these people. In gauging their efforts, I think it is very sobering for us to know that their outstanding achievements during the Communist 41 years of rule came during a time when the country went through the agony not only of two devastating world wars, but also a revolution, and a long-term harsh and brutal oppression by a ruthless tyrant who whipped them into submission to the Communist system.

In all, a student spends about 10,000 hours in a 10-year school. He spends about 28 per cent of his time in Russian language and literature; 20 per cent on mathematics; 13 per cent on science-biology, physics and chemistry; six per cent on foreign languages; and six per cent on history. The remainder is occupied with such things as manual training, mechanical drawing, practical work in factories or on farms, physical culture, and excursions. In the 10-year school all students have six hours of mathematics per week in all grades. Physics is begun in grade six and continued through grade 10, averaging three hours a week. Chemistry is studied in grades seven through 10 about three hours a week. Astronomy is taken by students in their tenth year and all students seem aware of the challenges of outer space.

Teachers and staff in every school and technical college we visited were proud to show us their well-equipped metal and woodworking shops. We got the impression that a large fraction, and in some cases all, students got extensive practical experience with tools. Further, the students always seemed to be working on something useful. For example, beginning students learning metal filing would make a V-shaped groove in a small piece of metal. This piece was then used as a part of a pair of calipers. The remaining parts and assembly were managed by students in the upper grades. The caliper then was used by students of geometry.

Perhaps my strongest impression was the students' smooth transition from schools to factories and farms as well as to universities. During his school hours the student has a great deal of manual training. He spends a significant fraction of his school time in a factory or on a farm as an apprentice. Some 10-year schools are sponsored by factories or collective farms and some factories are sponsored by schools. With the possible exception of highly qualified students in physics, all students are required to spend two or three years in a factory before entering a university. According to Mr. Khrushchev's latest educational pronouncement, this concern about production will be emphasized even more strongly in the future. This emphasis may be due to two causes: the first is the real need for technicians to meet Soviet production schedules, especially during this period which suffers from the low birth rate during the war; the second may stem from the political need to have everyone consider himself in the worker class to help minimize the dangers of the love of freedom of an educated man.

I must say that I was greatly impressed by the Russians tremendous and dedicated efforts to prepare for the new scientific and technical age. Their conviction that knowledge of science and mathematics is needed by all, their care to choose able teachers with good subject-matter background, their concern to make available a plentiful supply of teachers and well-equipped student laboratories, and their build-up of their universities and technical institutes—all give evidence of their conviction that technology holds the key to their future.

We have the material comforts for which the people of Russia are struggling—running water in our homes, television, automobiles, and other material blessings. On our part, we may well pause and inquire what *we* want. What is the cause or mission which can fire us with the resourcefulness and energy of our forefathers? How can we recapture the pioneering spirit which made our nation the technical and economic leader of the world? How can we rediscover the zeal and idealism of the Founders of our Republic who held high for us the promise of the freedom and dignity of man? What can we do, what *must* we do, to establish learning, or increase of knowledge, as a goal worthy of achievement?

## Russian Education Re-examined

**John B. Whitelaw**

*Chief for Teacher Education, U.S. Office of Education, Washington, D. C.*

I WISH TO EMPHASIZE two aspects of educational progress in the Soviet Union in the 42 years since 1917:

1. Their all-out faith in and support for education—a characteristic of Soviet *pioneer* society.
2. Their unlimited subsidization of brain-power for *basic research*.

The complete commitment to education of the Soviet people and the Soviet government is similar in many respects to the attitude toward education that we had in the United States 75 years ago. The psychological tempo in the Soviet society of some 200 million people, and a ruling Communist party of approximately eight million members, is the attitude toward education of a pioneer society. The USSR is a pioneer society, as is China today. We in the U.S.A. are an affluent society, as outlined by Mr. Galbraith.

We have more money than we know how to invest; more time on our hands than most people know how to spend wisely; more goods than we can use; and the constant threats to our economy are overproduction and unemployment. The Soviet Union is still an economy of scarcity; we are an economy of abundance. They glorify work and the worker; our goals seem to be largely in terms of leisure.

It appears that the Soviet standard of living, which now is far below ours is likely to be as high as ours by 1984. The great problem for us is what will be happening to us while they are catching up in material well-being? They are climbing the steep ascent of economic progress. We are up on the high plateau—more wealth for more people than ever in the history of mankind. They want all the material things that we have—cars, apartment houses, clothes, nylon stockings, television, speed boats, *etc.*, in the quantities that we have. The problem for them is a simple one.

But how about us? What are our objectives for the next 25 years? What guide lines or leadership do we have in charting our course?

This to me is the greatest challenge. While the Soviet Union is catching up to our standard of living during the next 25 years, a relatively simple achievement, what will be happening to us?

I believe that the most dynamic element in the whole educational and technological situation in the Soviet Union is an institution called "The Academy of Sciences." By science, Soviet educators mean all branches of knowledge—the humanities, the social sciences, and the natural sciences. This institution, the Academy of Sciences, founded by Peter the Great about 1725, is the means for broad and intensive subsidization of brain-

power by the State on a scale beyond any promotion of coordinated intellectual activity that I have known or heard of to date. The primary objective of this institution is *basic research*.

An academy of sciences is a regular part of the educational setup in each republic; the republic academies find their apex in the USSR Academy of Sciences in Moscow. This venerable and highly regarded institution has now become the powerful leading edge of the Soviet quest for supremacy in all fields of knowledge.

Apparently the Soviet government considers basic research to be the most practical investment that it can make. This attitude, along with the high prestige that is accorded brain-power in the Soviet Union, makes the Academy of Sciences the most powerful educational institution that I have ever encountered.

It is my impression that the Soviet Union is setting the pace for the rest of the world in techniques for the development and mobilization of intelligence. The critical problem that this poses, of course, is: How can we in the relatively free economies of the world achieve equivalent support for basic research in all fields of knowledge by the best brains of our respective countries?

Finally, let us not be ostriches. Delusions cost too much. We cannot condone, support, or encourage willful ignorance and wishful thinking concerning developments in the Soviet Union. The dynamics of the Soviet and the Chinese societies are tremendous. We remain ignorant at our peril.

### **Instrumentation for Teaching and Learning in Higher Education: New Media**

**Seymour A. Smith, RECORDER**

*President, Stephens College*

THERE IS GROWING AWARENESS of the phenomenal spread of educational television during the past five years and the consequent recognition that large account must be taken of this new resource for learning in any thinking about future educational needs. Controlled testing situations reflect favorably upon the learning which

NOTE: Chairman of Information Session C was C. R. CARPENTER, Director, Division of Academic Research and Services, The Pennsylvania State University; panelists were CLIFFORD G. ERICKSON, Assistant Dean in Charge of Television Education, Chicago City Junior College; JAMES L. LAHEY, Division Manager, Dage Television Division, Thompson Ramo Wooldridge, Inc., Michigan City, Indiana; MARSHALL McLUHAN, Professor of English and Co-editor, *Explorations*, St. Michael's College, University of Toronto, and MAURICE B. MITCHELL, President, Encyclopaedia Britannica Films, Wilmette, Illinois.

takes place through instruction via television. Opportunity to extend the availability of a teacher to larger numbers of students, improvement in demonstration techniques, and flexibility and extension in the use of audio-visual materials are among the contributions to the enrichment of teaching made possible by this new medium.

On the other hand, questions have been raised as to the adequacy of testing programs and the reliability of their results, the appropriate functions of the teacher, and the rapidly changing nature of course material which might make kinescope or film impractical.

One of the many examples of the use of educational TV is the extensive program being sponsored by Chicago City Junior College on open circuit Channel 11 with 49 educational programs each week. These currently include nine college credit courses enrolling more than 2200 students.

Closely related to the use of educational television is the use of motion picture films in teaching. In addition to some of the traditional applications of films to teaching, there recently have been more daring and comprehensive projects filming entire courses in physics, chemistry and the humanities. Studies reveal that students taking filmed courses achieve ratings on standard achievement tests at least as high as students taught by more conventional methods.

In answer to the question, "Is it possible through film or television teaching to develop the quality of creative curiosity and the capacity for critical thinking which are among the hoped-for objectives of education?", it has been suggested that more imaginative use of the new media would at least be no less thwarting to the development of these qualities than traditional teaching methods.

No one can escape grappling with the haunting implications of a challenging conclusion recently voiced in these words: "We have entered a new era in education in which newly available resources for learning may be as revolutionary in their effect as the invention of books in an earlier day."

### *Reports on Research Projects in Higher Education\**

**Roy M. Hall**

*Assistant Commissioner for Research, U.S. Office of Education, Washington, D. C.*

SUPPORT FOR RESEARCH in education is provided by the U.S. Office of Education through its Cooperative Research

\* The actual title of this paper was "Cooperative Research Program." NOTE: Also on the panel of Information Session D were EARL J. MCGRATH, Executive Officer, Institute of Higher Education, Teachers College, Columbia University, and ROBERT J. WERT, Executive Associate, Carnegie Corporation of New York, New York City.

Program. The Program, which began in July 1956, is operated under the terms of P. L. 531, 83rd Congress. This law authorized the Commissioner of Education to "enter into contracts or jointly financed cooperative arrangements with universities and colleges and state educational agencies for the conduct of research, surveys, and demonstrations in the field of education."

As of February 1959, the Office has provided financial support for a total of 166 projects. Of these 55 deal with the education and training of mentally retarded children, 21 deal with the selection and career development of teachers and school administrators, 19 with the identification and development of gifted children, and 10 with the retention of students in schools and colleges for as long as they may continue to benefit therefrom.

Since this program is confined to the field of education, with emphasis on the total educational process, all of the Cooperative Research projects have some implications for higher education. The majority of them will be of importance more in terms of the content offered in courses in the field of education rather than in terms of the total operation of a college or university. For example, ultimately the findings of our many research projects on the mentally retarded will be translated into the subject matter offered in preparing teachers to work specifically with these children. Similarly, the results of research in school organization and administration, teaching methods, and child growth and development will become part of the curriculum offered in colleges of education.

Among the projects already initiated there are several of special interest to those concerned with the operation of institutions of higher education. These deal with students who do and who do not enter colleges and universities at the completion of their high school work; admission to institutions of higher education; selection and retention of students in various fields of college work; basic college curriculum; attitudes and values of college students, and the different types of institutions of higher education and their roles in the community.<sup>1</sup>

<sup>1</sup> Editor's Note: A list of these studies is available from the Office of Education, Department of Health, Education and Welfare, Washington 25, D. C.

## Reports on Research Projects in Higher Education\*

**T. R. McConnell**

*Professor of Higher Education and Director, Center for the  
Study of Higher Education, The University of California at Berkeley*

THE CENTER FOR THE Study of Higher Education at the University of California at Berkeley has been, and continues to be, engaged in a series of investigations relating to the diversity of American higher education. These studies are grouped under four general topics: (1) diversity in student characteristics, (2) the junior college as an aid to diversification, (3) the statewide coordination of higher education, and (4) the factors which bear on college attendance.

A list of major studies is presented below:

1. The selectivity at point of intake of American higher education as a whole.
2. Intensive studies of college-going and academic survival in selected states.
3. Studies of winners and runners-up in the National Merit Scholarship project. Through the cooperation of John Stalnaker, all the scholarship winners and a 10 per cent random sample of the certificate winners of 1956 were invited to participate in a project planned chiefly as part of an attempt to determine whether higher institutions were differentially selective with respect to factors other than general academic aptitude, as well as academic ability. A second purpose was to determine the relationship of certain measured personality characteristics to choice of field of specialization, vocational choice, professed attitudes and values, academic attainment, and to changes in these factors during the students' college career.
4. Diversity of student characteristics in selected professional schools. The current studies involve medical and dental students only.
5. A study of differential selectivity and institutional impact in selected colleges. This project, which is longitudinal in nature and which began in September 1958, aims to extend knowledge about the social and psychological forces that make for varying degrees and kinds of success in college.
6. A major study of the role of the two-year college in American higher education. Data were gathered on the two-year college movement throughout the nation and intensively in 15 representative states. This inquiry sought information on junior college students and

\* The actual title of this paper was "Projects Completed or Under Way at The Center for the Study of Higher Education, University of California, Berkeley." It was presented by LELAND MEDSKER, Vice Chairman, Center for the Study of Higher Education, The University of California at Berkeley.

- what happens to them, the extent to which the two-year college is a transfer and a terminal institution, programs offered and enrollments in them, performance and retention of transfer students, student personnel services, attitudes of junior college staff members, and the place of the junior college in state-wide systems of higher education.
7. An investigation of the impact of the junior college in a particular community. This is a sociological study of the development of the San Jose Junior College, with particular reference to problems a new college experienced in finding its place in a community.
  8. A sociological study of the junior college teacher. Using data already gathered on approximately 3500 junior college teachers, this analysis will consider the junior college teacher with respect to such factors as his recruitment, selection, career pattern, professional orientation, social background, and nonoccupational behavior.
  9. State-wide coordination of higher education. This was an intensive study of the organization and operation of state-wide coordinating agencies in 12 states.
  10. A study of the factors which bear on the number of high school graduates from different socio-economic and ability levels who enter college.

### Publications

Major reports of the studies will be published by the McGraw-Hill Book Company. The report of the study on state-wide coordination appeared in the spring of 1959. The report on the place of the junior college in higher education and that on the case study of San Jose Junior College will be off the press in the fall of 1959. Monographs on the various aspects of the study of student characteristics will also be announced during 1959.

### Reports on Research Projects in Higher Education\*

**Elmer West**

*Director, Office of Statistical Information and Research  
American Council on Education, Washington, D. C.*

THE OFFICE OF STATISTICAL Information and Research of the American Council on Education was established in November 1956 with a grant from the Carnegie Corporation of New York. The tasks assigned to the office include, among other objectives,

\* The actual title of this paper was "Research Projects in Higher Education: A Report From The Office of Statistical Information and Research of The American Council on Education."

the following: (1) the development of a center of information about educational statistics, with emphasis on higher education; (2) the analysis of data relating to higher education; (3) the improvement of data about higher education, including methods in gathering statistical information; (4) the identification of gaps in data, and the encouragement of existing agencies to fill gaps in present knowledge, and (5) the making of a limited number of studies. The objective of the office is not to add more statistics to those available but to increase the usefulness of existing information and to improve the methods of producing new information.

Among the above tasks, perhaps the easiest is the identification of gaps in the data about higher education. In April 1958, OSIR held a two-day conference on "Gaps in the Statistics of Higher Education and Ways to Close These Gaps," with President Hovde of Purdue, the chairman of the Committee, presiding. Thirty-three invited participants attended, representing both developers and users of data. The gaps identified by the participants were, as expected, extensive. Their identification in this manner, however, served to focus attention on those of most consequence.

A description of some of the other activities of the office would include:

*The Reports on Questionnaires.* These reports, which are mailed with *Higher Education and National Affairs*, briefly describe questionnaires which, through the reports to OSIR by the cooperating *Listening Posts* and the many others who have reported questionnaires, are known to be in circulation. To date, 21 reports have been distributed with another to go out very shortly.

*Reports on Current Institutional Research.* These reports are sent to a small group of people interested in and concerned about institutional research. Each report (nine have been issued) contains a very brief description of institutional research in one or more colleges and universities.

*The "Facilities" Report.* Another activity of the office was the publication of a report on the cost of facilities for higher education. The 56-page report was published by the Council in July, 1958, under the title *Needed Expansion of Facilities for Higher Education, 1958-70; How Much Will It Cost?*

*The Loose-leaf Fact Book on Higher Education.* Last year, OSIR undertook the development of a loose-leaf fact book. The first pages were mailed in early October. Simply stated, the task undertaken is to provide, in one source, and in a form easily used, all data currently available on or relating to higher education. As the data already issued are being replaced by new data, new pages will be issued as replacements. Most of the pages previously distributed will be reissued soon, with new data, and an improved format.

OSIR is serving, in an increasing way, as a center of information about statistics in higher education. It has maintained close liaison with other agencies and organizations in order to reduce or prevent duplication of effort. It has successfully encouraged certain organizations to undertake research programs for which they were especially qualified, in order to provide answers to some of the urgent questions.

## ***Developments in School and College Segregation-Desegregation***

**Luther H. Foster**

*President, Tuskegee Institute*

DESEGREGATION IS USUALLY thought of as the process of accommodation to principles of constitutional law which guarantee freedom from racial discrimination in the normal public experiences of individuals. In this context, desegregation in education is involved with two basic considerations: (1) rights of individual students, and (2) relationships in the sector of publicly supported education.

We may not neglect, however, an equal concern for processes of desegregation in private education. The moral aspect of the desegregation issue is applicable regardless of the extent of legal compulsion for desegregation based on the individual's right to public education. For this reason few, if any, public or private higher institutions will escape the internal and external demands to examine the question of educational desegregation as it affects the particular institution.

The effectiveness of the processes of desegregation in education are important in view of America's need for: (1) national security, as expressed in the technical and personal competence of the total citizenry; (2) higher education, as expressed in its leadership through teaching, research, and responsible public service, and (3) individual security and dignity, as expressed in the opportunity to acquire an education which facilitates the development of the student's highest potential.

The public is acquainted with the headline-making developments of the segregation-desegregation controversy during the past several months . . . the fall of massive resistance in Virginia . . . continuing resistance in Little Rock . . . schools dynamited in Tennessee and West Virginia . . . synagogues dynamited in Atlanta and Miami . . . occasional violence elsewhere.

But there were other significant developments which do not appear in the headlines. These stories reveal that there is frequently less difficulty in desegregating than is expected.

For the first time in history, Negroes were elected to city school boards in Houston, Texas, and Louisville, Kentucky.

In West Virginia, a Negro was appointed head basketball coach at Charleston High.

After 82 years of providing segregated education for Negroes, Meharry Medical College in Nashville accepted two white students.

Nashville and three cities in North Carolina—Charlotte, Greensboro,

NOTE: Chairman of Information Session E was LESLIE L. MARTIN, Dean of Men and Associate Professor of Education, University of Kentucky.

and Winston-Salem—quietly began their second year of limited integration without any of the disorder that characterized 1957.

In Texas, two communities—Pleasanton and Bloomington—became the first to desegregate on the basis of a popular referendum. On the other hand, Boerne, also in Texas, turned down integration by referendum.

Florida left the ranks of the Deep South states which had "no desegregation-at-any-level." A Negro was admitted to the law school of the University of Florida.

Miami is considering desegregation of an elementary school in one neighborhood . . . Atlanta city officials are talking in terms of local option as a solution of their desegregation problems.

Texas has a three-fold school problem in desegregation. Its largest minority is made up of children of non-English speaking migratory Latin Americans.

The segregation-desegregation issue has produced some unexpected developments. One federal court approved a staircase integration plan for Nashville; similar plans proposed for other places—including Hopkinsville, Kentucky—were rejected.

What is the desegregation picture in the South? In 1958 it remained substantially unchanged. Six Deep South states still have not desegregated at any elementary or high school level. They are Alabama, Florida, Georgia, Louisiana, Mississippi, and South Carolina. Only four states have avoided desegregation at the college level.

When the 1958 fall school term opened, there were only 18 additional desegregated biracial districts than there had been in 1957. Of the 2896 biracial school districts in the South, there are now 796 that have begun or completed the desegregation process. Reopening of Norfolk and Arlington County schools added two more.

In the South as a whole there are 8677 school districts. Of this total there are 2896 biracial, meaning with both Negro and white children enrolled in their schools.

Still speaking statistically, there are 9,658,000 white pupils and 2,970,344 Negro pupils enrolled in southern public schools—giving Negroes a total representation of 23.5 per cent. Of these, 402,000 Negroes are in what we call integrated situations, meaning children in districts which have integrated schools or have started desegregation.

But there is the fact that of this nearly half-million Negroes, not more than 175,000 attend mixed schools. For example, all of the nearly 3000 Negro children in Lexington, Kentucky, are considered to be in integrated situations because that city has desegregated at all school levels. At last report, only 64 Negro children had chosen to transfer from all-Negro to previously all-white schools.

Since 1953—the year before the Supreme Court's desegregation decision—11 southern states have enacted more than 200 anti-integration laws. Before 1953, 79 such laws were on the books in all 17 of the southern and border states. Many of these old and new laws have come under court attack.

Some school systems have begun desegregation in the first grade, moving upward from the lower level. Another plan begins at the upper level and moves downward. Still another practice is to begin simultaneously at the bottom and the top. There are several other variations, including the beginning of desegregation in selected schools or in selected subjects. Some communities adopt combination plans particularly suited to the local situation.

Attention has been directed recently in some states to pupil assignment plans. These require consideration of many factors in the individual pupil's background, academic competence, psychological adjustment, and other points. The Alabama Pupil Placement Law has been declared constitutional *on its face* although the Supreme Court pointed out that the law must be administered without racial discrimination.

At the college level, desegregation continues to expand, although slowly. Several formerly all-Negro institutions now enroll substantial numbers of white students. West Virginia is a case in point. Negroes in larger numbers are accepted into formerly all-white colleges and universities in the South. Desegregation of the teachers college program in the District of Columbia is fully accomplished. The trend to full desegregation in higher education is unmistakable, despite the absence of any Negro enrollment in the public higher institutions of four southern states. Even in this group of states, desegregation is observed in some private colleges.

*In summary:*

1. The principles undergirding desegregation in public education are being acknowledged increasingly.
2. The actual practice of desegregation within the framework of these principles moves slowly. There is progress, however, in both public and private institutions. Legal processes, the development of acceptable plans, the rigidity of long-established patterns of school attendance, and other factors combine to delay a desegregated experience for most individual pupils.
3. The legal processes have been relied upon widely in the field of public school desegregation. This has facilitated progress toward clarification of issues and identification of public and individual responsibilities. The legal machinery has been utilized by both the proponents and the opponents of school desegregation.
4. The implementation of desegregation is recognized increasingly as a community responsibility. Both readiness and the social dynamics of communities vary from place to place. This is reflected in the variety of plans emerging.
5. The pattern of desegregation in public education continues to be quite fluid. This status report has its limitations, therefore, as an accurate assessment of desegregation developments.

## Analysis of the Literature on Higher Education

**Lewis B. Mayhew**

*Director of Research, Stephens College, and Professor, Michigan State University*

THIS REPORT, based upon 202 volumes, is divided into categories ranked by number of volumes: (1) General character of higher education, (2) Evaluation of programs, (3) Instruction and teaching staff, (4) Administration, (5) Student personnel services, (6) Curricular programs, (7) Comparative education, (8) Bibliographic.

These books were published by university presses, commercial presses and other organizations in that order of number of volumes published. There has been a marked numerical increase in the number of volumes issued by commercial presses. Of the commercial presses Harpers maintains a significant lead in the number of volumes published. Of the university presses, Columbia, Teachers College, University of Minnesota and Harvard still lead the field. Of the organizations the American Council on Education is by far the most prolific producer of works on collegiate education.

A strikingly small number of volumes rest on scientific experimentation and empirical study. However, there has been some increase in the number and proportion of volumes so oriented. The number of volumes published each year seems to be increasing—especially those dealing with the teaching process itself. In addition, there is an increasing number of volumes descriptive of student characteristics. The published volumes are beginning to reflect application of other disciplines to the problems of education. Group dynamics, anthropology, the psychology of personality and sociology, all have increasingly been brought to the service of greater understanding of the collegiate situation.

Rather than make further, more intensive quantitative analyses of the published literature, this paper will consider the substance of a selected group of books and will advance some criticism of them. No attempt will be made to mention all of the recently published books. Rather it is hoped that those which are considered will serve as examples from which can be inferred the general characteristics of the literature of higher education.

Particularly interesting has been a group of books dealing with student characteristics. In part these books are reflective of the growing concern people seem to feel about the younger generation. In part they reflect the tendency of contemporary collegiate education to be oriented toward meeting the needs of students in place of regarding students as only

NOTE: Chairman of Information Session G was HORACE T. MORSE, Dean of the General College, University of Minnesota.

bothersome necessities who subsidize more important functions of the college. A collection of extended essays was written by Princeton students as they attempted to describe who they were and what seemed to motivate them. Otto Butz, the editor, called them and his book *The Unsilent Generation*. These essays picture a group of highly articulate students whose standards of personal conduct at times seem at variance with those of an idealized adult population.

Sponsored by the American Council on Education, Edward Eddy and two young associates made an elaborate participant observer study of selected colleges to find out how and with what success character education was carried on. The authors of *The College Influence on Student Character* reach the conclusion that student values are being changed in, to them, desirable directions. They find that those schools having most impact on student values are those which apply the same methods they use in effective teaching. The authors contend that if colleges will use care in planning character building programs, and will use ingenuity and energy in carrying them out, changes in student values will come about. This optimistic volume is an appropriate companion piece for Max Wise's *They Come For the Best of Reasons*. Wise is quite unsympathetic with the Cassandra-like views of college students. He repeatedly presents critical descriptions of college students as immature, beat, lacking in motivation or socially oriented and then discredits the generalizations by recourse to a variety of published and unpublished studies.

Consistent with this more optimistic view of students is the growing criticism of colleges and teachers as being largely to blame for the failures of education. The point is almost that something is wrong with higher education. Blame can and has frequently been placed on student lack of motivation and the poor preparation given them by secondary schools. Currently, blame is being assigned more and more frequently to the colleges themselves. George Williams, avowing that *Some of My Best Friends are Professors*, is perhaps the sharpest of the new critics. He feels that teachers don't really want to be bad men, they just have fallen into evil ways. Their methods of teaching are holdovers from the eighteenth or earlier centuries while their personal search for power and preferment are examples of Madison Avenue at its worst. This same point of view is reflected in Stringfellow Barr's documentary novel called *Strictly Academic*.

Another recent book deals with why professors leave jobs and how their replacements are selected. Theodore Caplow and Reece J. McGee in *The Academic Market Place* present the results of an intensive interview study of departments from which professors had moved.

With less venom than the previous volumes, John Stecklein and Ruth Eckert in *An Exploratory Study of Factors Influencing the Choice of College Teaching as a Career* have studied why professors in Minnesota selected their profession. The class relatedness of teaching as a career is explored by Stiles in *The Teacher's Role in American Society*. While this is chiefly concerned with elementary and secondary school teachers,

it also throws some light on the college teacher. David Riesman has written on the same subject in "The Academic Career: Notes on Recruitment and Colleagueship" appearing *Daedalus*.

Criticisms of the American college professor or the searching analysis of him result from the prior concern about the status of the collegiate enterprise. The past several years have seen a spate of books dealing with the characteristics of higher education and the role it is to play in the social order. Ordway Tead says in the *Climate of Learning* that presidents, boards of trustees, faculty, counselors and students must perceive right objectives and then remain true to them. Not all writers possess Ordway Tead's insight into American education. Another series of lectures edited into a book present essentially a neoclassical call for return to old time educational values. De Vane, in *The American University in the Twentieth Century*, feels that if the college would simply go back to its earlier curriculum and would reject Deweyism, many of the troubles would be overcome. He has little conception of the college as an emerging social institution, the precise nature of which changes from generation to generation.

The fact that men can so differently conceive of the nature of education is scrutinized by Mortimer J. Adler and Milton Mayer in *The Revolution in Education*. These men seek to locate the real differences in theory and principle which divide men on the problems of education.

While these authors have called for a new view of education through clarification of the issues, Theodore Brameld in *Cultural Foundations of Education* calls for an entirely new philosophy of education, which he calls reconstructionism, in which ultimately the salvation of education will derive from a reconstruction of all of society. Brameld has suggested that all of society must be reached to find the way out of the contemporary educational impasse.

George P. Schmidt in *The Liberal Arts College*, and John S. Brubaker and Willis Rudy in *Higher Education in Transition* imply that part of the answer must come from a study of history. Schmidt in a fairly orthodox description traces the evolution of the liberal arts college as a distinctly American institution. The second book is more elaborate in scope, treatment and scholarship. It also traces the indigenous liberal arts colleges but then seeks to determine why. As he traces the development he gives considerable attention to the conflict between secular and sectarian forces for the control of colleges.

A much larger group of books deal with specific programs or aspects of college education. Of intense significance at the moment is the question of independent study. As colleges seek to care for larger numbers of students with smaller faculties their attention has turned irresistibly to independent study. Allow the professors to serve as guide and confidant of students but let the student do the hard work of study. Bonthius and others (*Independent Study Programs in the U. S.*) should explode this belief. Schools have long experimented with such activities but have always found them to be expensive of both faculty time and

money. Where these resources are available, however, they seem to be well received by both students of great and of mediocre talents. As an educational technique these programs have value but not as a way of balancing educational budgets.

Another frequently recommended panacea for the problem of numbers is the two-year junior or community college. Thus, there was need for a comprehensive treatment of the nature of such institutions. Tyrus Hillway in *The American Two Year College* has made a first venture to meet this need. Unfortunately, the account is too glowing of what the community college can hope to accomplish. It rarely points out such issues as what the effects of junior colleges will be on four-year institutions which ultimately must validate junior college graduates who also finish the university.

Paul L. Dressel and his associates in the Office of Evaluation Services have described 11 years of research in *Evaluation in a Program of General Education*. There are chapters on general education and on the problems of doing research in higher education. These are followed by chapters dealing with clusters of projects concerned with particular problems. This book reflects one of the most complicated research programs in the country. As a complete aside some of the studies described in detail in this volume were used by Jacob in his book on values. Those interested can get a clear picture of the tenuous nature of broad generalization by comparing the two volumes.

Four relatively slim volumes or pamphlets should be mentioned as illustrative of useful reports of research. Earl McGrath and Charles H. Russell in *Are Liberal Arts Colleges Becoming Professional Schools?* summarize some of the work of the Institute for Higher Education. They find that the professional schools have taken on many of the characteristics of liberal arts colleges which in turn have moved in the direction of technical schools. McGrath has other studies in progress which will reach publication later this year.

Blair Stewart considered another portion of the same problem in *Liberal Arts and Medical Education*. He studied the requirements for entrance in various medical schools and the degree of achievement students with differing preparations had, once admitted. From his studies Stewart emerges with the interesting observation that the better the student, the less he actually needs a strong science background for medical study.

Hoyle Trowbridge in *General Education in the Colleges of Arkansas* reports on the elaborate Ford sponsored study of higher education in that state. This was a major action-research program designed chiefly to upgrade the training of teachers. It was found that by concentration of immense resources in the state and by making wide use of in-service training devices for college teachers that major revisions of the curriculum could result.

Frederic W. Ness in *The Role of the College in the Recruitment of Teachers* studied the methods by which teachers were recruited. He

found, as did Stecklein, that teachers entered the profession as a result of capricious circumstances. If, Ness contends, colleges could make just a slightly greater effort to systematize their recruitment practices, many more new professors could be found.

There have also appeared a number of books which can be considered broad policy statements on specific aspects of collegiate education or else which described how to do certain things. Daniel A. Feder in *The Administration of Student Personnel Programs in American Colleges and Universities* presents the last of a long series of pamphlets issued about the student personnel movement by the American Council on Education. Feder's committee lists a wide variety of activities subsumed under student personnel from recruitment to part college placement.

Nelson Henry as editor of the Yearbooks of the National Society for the Study of Education is each year responsible for important contributions to higher education. One volume of the 1957 issues is devoted to *The Integration of Educational Experience*. Of particular concern here is the chapter on higher education. The author of that chapter found only a handful of genuine efforts to achieve education and most of those dealt with somewhat atypical student populations.

John A. Pollard's *Fund Raising for Higher Education* is a how to do it book. He shows that fund raising depends on a sound educational program without which no amount of organization and salesmanship will result in successful fund raising.

In view of the charges of inefficiency being leveled at higher education there is bound to be great interest in college administration knowing how their physical plants are being used. To help in the study of this matter, John Dale Russell and James Doi have issued the *Manual for Studies of Space Utilization in Colleges and Universities*. This shows how faculty committees can make such studies, the forms on which they can collect their data and the statistics by which they can make their results comparable to those of other institutions.

Myron Wicke has also met a major problem in issuing his *Manual for Boards of Trustees*. He tries to show what board members should and should not do.

Dana L. Farnsworth, drawing on his own experiences at Harvard, has published *Mental Health in College and University*. He tries to show the role of mental health in the life of the college student and then advances a plan by which colleges can obtain better psychiatric service at relatively low cost.

Two other books deserve mention as illustrative of the current literature. The first of these is the collection of papers from the 1958 Minnesota Conference on College Teaching edited by Russell M. Cooper. Under the title *The Two Ends of the Log: Teaching and Learning in Today's Colleges* this book presents essays by such men as Nevitt Sanford on the characteristics of the undergraduate, Harold Taylor on the teaching of these same students and Ralph Tyler on the appraisal of teaching effectiveness. A particularly provocative essay is that by Edgar

Dale of Ohio State on newer methods of teaching. The entire volume is unique in that it is not bound by stereotypes about education. The authors were urged to report conditions as they found them and then to speculate as to how things might be. Even students were given a say in this volume.

The other book is John Dale Russell's Report of the Michigan Legislative Study on Higher Education called *Higher Education in Michigan*. There are 13 volumes in the study itself. However, the findings and recommendations have been included in a summary which has been published in cloth binding. This is the most complete of such undertakings to date and can well serve as a model for those which are to follow.

One could go on commenting on various books which deal directly or by implication with higher education. One could search the fiction lists and comment on such things as Carlos Baker's *A Friend in Power* which describes in quiet tones an honest search of a university for a new president. Or one could point out Aldous Huxley's *Brave New World Revisited* which sees only a revitalized education, teaching directly for problem solving abilities, as the way to stave off either *Brave New World* or worse a world of 1984. One could mention collections of presidential addresses such as Father Hesburgh's *Patterns for Educational Growth* in which the author argues for a vigorous dynamic life rather than one of contemplation. One could cite the many annual reports by presidents of universities, foundations or educational agencies, two challenging examples of which are Henry Chauncey's report for 1957-58 on the growth of the Educational Testing Service or Arthur Adams' *Annual Report* on the American Council on Education. In both of these their thoughtful authors ponder the state of American higher education against a backdrop of world uncertainty. However, enough citations have been presented to show the pattern the current literature is taking. From the study of this pattern one can perhaps infer the topics most useful of book treatment in the future.

There is still not a good definitive but analytical treatment of the existing types of collegiate education. Two years ago Edward Eddy described the land grant colleges and there have been histories of a great variety of colleges and universities. There needs to be a volume soundly based on research on the smaller liberal arts college. There is need of a more critically analytical treatment of the junior college. There also should be a thoughtful consideration of the future of women's colleges.

Hundreds of institutional self-studies have been conducted, some of which have been published and some of which have not. The lessons from all of these should in some way be synthesized and published for the guidance of all of us.

More research volumes should be published on the various debated questions in collegiate education. The Ford Foundation report on *They Went to College Early* is an example of what can be done. Such problems as college counseling, college dropouts, or even administrative functioning can be studied by empirical means.

There is a crying need for soundly based works on the philosophy of higher education which takes due recognition of current findings of psychological research. What John Dewey did especially for the earlier years of schooling should be done for the collegiate years.

There is also need for more books on college teaching. Not only are the growing number of courses in higher education in need of text materials but we all could use fresh insight on this central problem. A year ago Buxton's book, *A Guide to College Teaching*, and the one prepared by Justman and Mais, *College Teaching: Its Practice and Its Potential*, seemed to suggest a trend. That has not eventuated although there may be volumes in preparation.

Educational implications of the newer frontiers in scholarship need to be considered in book form. Some would argue that this can best be done through journal articles but these are read by only a few specialists. Such efforts as the University of Illinois inquiry into the teaching of mathematics, and the American Historical Association publication of pamphlets on current historiography should be reviewed in some detail and common principles inferred. In this same connection one could hope to see close collaboration of professors in the various disciplines with professional students of education in published works dealing with the frontiers of knowledge and the problems of education.

The literature of higher education is rich. It should become richer. It is large and it should become larger. It also should be *read*.

### *Institutional Long-range Planning: A Formulation of Procedures*

**H. Lawrence Wilsey**

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Booz, Allen & Hamilton, Chicago, Illinois*

AN INSTITUTION IS engaged in long-range planning when it selects and defines its educational objectives; determines the means required for achieving them, and prepares for systematic achievement of those objectives within stated periods of time. Long-range planning cannot be wholly casual or informal. It must have a definite pattern, be firm enough to provide guidance, yet flexible enough to meet the institution's changing needs, and it must lead to effective action in the desired direction.

The coming crisis in higher education measured largely in quantitative terms has been well publicized since 1953. By 1970 our system of higher

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NOTE: Chairman of Information Session H was ARNOLD E. JOYAL, President, Fresno State College.

education may have to provide for a doubling of enrollment; a total of close to \$15 billion for the construction of new facilities and the modernization of existing facilities; the addition of over 200,000 teachers to college faculties; and at least a doubling of aggregate operating expenses. The sheer magnitude of the changes required emphasizes the need for careful forward planning. But perhaps the most serious need for improved planning arises out of the growing confusion as to the proper role of higher education in our society. The consequences of the coming crisis in higher education reach far beyond the field of education. The kind of educational performance achieved over the next two decades will undoubtedly have a marked influence on the whole course of human affairs.

The survey of college and university planning conducted by Booz, Allen & Hamilton indicates that the total planning effort is not adequate to meet the foreseeable needs of the coming decade.<sup>1</sup> In fact, the plans being made by educational institutions today account for less than 70 per cent of the total enrollment increase that is generally forecast for 1970. To meet the quantitative and qualitative needs of the future it is essential that more institutions develop long range plans and that almost all institutions improve their planning.

The planning process is not an exercise in abstract speculation or wishful thinking but a living experience in purposeful teamwork. Sound planning requires effective decisions at seven levels:

1. *Philosophy.* What are the educational needs of a free society?
2. *Objectives.* Which of these general educational needs should this institution seek to meet?
3. *Programs.* What instructional programs, research programs and service activities will best serve the needs selected?
4. *Organization.* What human abilities, knowledge and skills are required in order to carry out the selected programs and activities? How should they be related?
5. *Staffing.* What numbers, kinds and qualifications of people are required?
6. *Facilities.* What numbers, kinds, quality and locations of facilities are required?
7. *Financing.* What operating and capital funds are required, and where and how can these funds best be obtained?

Decisions made at each level are dependent on those made at all preceding levels. Unfortunately, all too often educational planning revolves around consideration of the funds at hand or that are immediately available, so that the planning process starts with financing and then

<sup>1</sup> Recognizing the importance of planning to successful educational programs the Institutional Management Division of Booz, Allen & Hamilton undertook a special study of long range planning for colleges and universities as a public service in order to combine the best current practices, along with new concepts, into a comprehensive and practical planning guide for colleges and universities. This presentation summarizes the findings and conclusion of this study.

progresses backwards to facilities, faculty and programs. This does not allow the institution to plan its over-all destiny with any sense of certainty or conviction.

Once the institution has established its initial intent at each of the seven levels of decision making, this intent should be evaluated and extended into the future.

There are five stages in the process of extension worthy of note. These are: (1) the establishment of initial intent of the institution; (2) the identification and analysis of the key factors affecting initial intent, including prediction of future trends; (3) the revision of initial intent in the light of these predictions; (4) the evaluation of tentative goals against funds obtainable and people involved, and (5) the setting of final goals and time schedules.

The main purpose of the planning process is to secure accomplishment. Thus, planning and implementation are closely integrated. Too often, long-range planning is conceived as simply involving future projections. This is and should not be the case. Effective planning should lead to implementation, and proper implementation in turn should lead to improved planning.

There are several key preparations essential to effective planning and implementation. It is essential that continuous support of planning be provided by the board of trustees and members of the top administration. It is essential also that preparations be made that will provide an institutional climate sympathetic to change. The desirability of widespread participation of all concerned cannot be stressed too much. Leaders of an institution should (1) foresee the action roles required and prepare the various people involved for their tasks, (2) anticipate the major problems that will be encountered and prepare early for solutions, (3) carefully define the responsibilities and duties of all participating individuals, and (4) provide effective controls to channel the effort in the desired directions. Establishment of effective policies and use of priority budgets can be exceedingly helpful in the administration of these tasks.

Implementation can thus be seen as a pattern or complex of activity in which the established goals are the pulling force and the participating groups are the drive toward achievement—all controlled and administered through properly established policies and priority budgets.

The continuing success of our democratic society is vitally influenced by the performance of our educational institutions. Their survival and success is essential to our leadership in the world and our way of life. It is the crucial role of long-range planning to provide the means whereby such survival and success are made possible for universities and colleges.

## Successful Practices for Recruiting College Faculty\*

**John K. Folger**

*Associate Director for Research, Southern Regional Education Board, Atlanta, Georgia*

THIS REPORT WILL BE an attempt to synthesize some of the results of research in a form which will be helpful for administrators. In doing so, I will, of necessity, oversimplify some findings and leave out some of the qualifications.

My remarks will be confined to two points: (1) What is the nature of the problem and how serious is it? and (2) What is the problem from the point of view of the recruit, how did he happen to become a teacher, and what keeps him in teaching?

It has been evident for some time that the number of students desiring a college education in the 1955 to 1970 period will increase more rapidly than the number of new faculty members who will be available to teach them. Over-all figures are not very helpful, however, because the shortages are very unevenly distributed. Ray Maul's reports from the National Education Association on college teacher supply and demand have been very helpful in spotting the fields in which shortages occur. As discussed in *The Academic Marketplace*, there are few shortages in the large, rich, prestige schools, and progressively greater shortages in the institutions with lower prestige and less adequate financial support, but I have not seen any adequate statistical treatment of the problem. In spite of the fact that a good deal has been written and said about the quantitative size of the faculty recruitment problem, there is very little evidence that this concern has been translated into faculty concern and action (as distinct from administrative concern and action).

This leads to the second aspect of the problem: What do we know about the way in which people are recruited into teaching? What motivates them? Answers to this question can be given in several ways. Ruth Eckert and John Stecklein at Minnesota asked faculty members in Minnesota colleges to describe in retrospect how they became teachers. John Gustad at Maryland used a similar procedure with chemists, psychologists, and English teachers throughout the South. Many of their findings were similar. For example, college teachers themselves are the most important source of influence on the people who come into teaching. Among the professions, medicine, engineering, law, other studies have shown that the family is of primary importance, and relatively few people are influenced to enter the professions by college teachers. But the

\* The actual title of this paper was "What Research Says About Recruiting College Teachers."

NOTE: Chairman of Information Session I was RUTH E. ECKERT, Professor of Higher Education, University of Minnesota.

respondents in Minnesota and the South reported that college teachers were the most important persons in influencing them to attend graduate school and to become teachers.

This retrospective data is confirmed by another study done in four Florida colleges. College seniors were asked about their career plans and plans for advanced study. The most important persons in influencing them to go to graduate school were college teachers; among students planning to go on to professional schools, it was the parents.

John Gustad's study shows also that most people make a career decision for teaching relatively late, and that this decision is not made on the basis of careful planning and career counseling. Gustad describes the entry into teaching as a process of *drift*.

The meaning of these findings for our present-day faculties is clear: they must be recruiters as well as teachers. Gustad has a number of other findings which relate to the job satisfaction of college teachers, and which have implications for their effectiveness as *models* that will attract students into a career as college teachers.

A good annotated bibliography of the literature on the recruitment of college teachers is *College Teachers and College Teaching* by Walter C. Eells. Mr. Eells found, and describes in the bibliography, over 500 articles and books that deal specifically with selection and recruitment of college teachers. This bibliography covers the period from 1946 to 1956. Mr. Eells has just completed a supplement to this bibliography which covers 1957 and 1958 and contains over 225 additional references dealing specifically with recruitment.

### *Successful Practices for Recruiting College Faculty*

**Frederic W. Ness**

*Academic Vice President, Dickinson College*

THE TOPIC "Successful Practices for Recruiting College Faculty" could mean two different things. It could mean the successful efforts of a college to recruit members for its own staff (gathering rosebuds where it may), or it could mean the successful efforts of an institution to encourage its graduates to enter the profession of college teaching. It is the second of these which has the broader significance and which, accordingly, will be considered here.

In view of our present knowledge of the motives which govern the choice of college teaching as a career, this problem of recruitment continues to be highly complex. Even though a breakthrough has been made by the investigations of Professors Stecklein and Eckert at Minnesota and

Gustad at Maryland, undoubtedly more basic research needs to be done in this area. But perhaps even more needs to be done in utilizing the results of our present knowledge in the planning and conduct of our recruitment programs.

Since the normal avenue to college teaching is graduate study, the first effort in recruitment is clearly to encourage the right kind of college student to continue his academic preparation beyond the baccalaureate. Here the importance of the Woodrow Wilson National Fellowship program and the provisions of the Title IV of the National Defense Education Act cannot be overestimated. These, and other types of financial support, provide essential external stimuli.

Of much greater importance is the academic experience of the potential teacher. Through the internal stimulus of a rich undergraduate program the prospective instructor must acquire a love for his subject, a desire both to extend his own knowledge of the field and to impart this knowledge to others, and a feeling of deep respect for the learned profession.

A nationwide analysis of the undergraduate origins of college teachers is now nearing completion. The results, according to advance information, may well be startling. Certain colleges and universities with the highest reputation are relatively low in their production of college teachers. Thus it is not merely a high academic standard which encourages careers in teaching. Moreover, there is a possibility that the pre-eminence of the small liberal arts college in recruiting students for college teaching may be undergoing a shift—a shift based on subtle sociological changes. There is some indication that the balance is turning in the direction of the public university.

Until contradictory evidence appears we shall assume that the most successful recruitment of college teachers is a product of the type of educational program which offers a maximum of academic stimulus, a maximum of individual participation in the learning process, and a maximum of direct transfer from the teacher to the prospective teacher. Thus the heart of successful recruitment would seem to lie in the inter-relation between the professor and the student.

The colleges which have the greatest success in recruiting prospective college teachers seem to be those in which the individual faculty members are so enthusiastic about their vocation that they are willing actively to proselytize. No formal program of promotional lectures or meetings, no efforts on the part of a zealous administration can provide an adequate substitute for the pervasive influence of a dedicated teacher working day in and day out with an alert, receptive student.

Although many methods have been devised for identifying the prospective teacher, a majority of these are based on an evaluation of academic potential and performance. Once identified, the recruit may be encouraged through counseling, through enabling him to gain actual teaching experience (this can be done even on the undergraduate level),

and through making available the financial means for his attending graduate school.

Many devices, too, have been evolved for promoting the idea of college teaching as a career. These include both local and state-wide efforts, as well as the programs of national academic and professional associations. Everyone is familiar with the productions of the American Council on Education, the Association of American Colleges, and of the Association for Higher Education. We may be less familiar with the excellent promotional activities of such organizations as the American Society for Engineering Education.

But if we are to be successful to the extent of meeting national needs we will not only have to step up our promotional efforts but we will also have to effect a widespread change in the status of the teaching profession. This implies a wider public recognition of the quality of service performed by the teacher on every academic level. Salaries must be improved, of course; but, even more, the teacher must become a first-class citizen in the eyes of the community. It is ironic that some of the chief advocates of higher education are those who have never received one, that the loudest supporters of the teaching profession are non-teachers. The profession itself must take a more vigorous lead if any of our recruitment programs are to be really successful.

### ***Local Institutional Development Programs and the National Advertising Campaign for Higher Education***

**Eldredge Hiller**

*Vice President, Public Information  
Council for Financial Aid to Education, New York City*

THE JOB OF EVERYONE working for the advancement of education would seem to be to do everything in his power to try to make the citizen—the donor, the corporate manager and director, the alumnus, parent, church member, the voter, and legislator, but still the citizen—understand that *this* is his hour of decision. *His* is the choice and the responsibility for the kind, size, and quality of our educational establishment of tomorrow. We need no crystal ball to know

NOTE: Chairman of Information Session J was FRANK H. SPARKS, President, Council for Financial Aid to Education, New York City; panelists were VICTOR DANILOV, Director of University Relations, University of Colorado; ED. HAISLEP, Executive Secretary, The Association of Minnesota Colleges, University of Minnesota; EVAN LLOYD, Executive Director, Cleveland Commission on Higher Education, Cleveland, Ohio; RICHARD KELLY, Assistant Vice President, Executive Assistant, The University of California, and PATRICK ROONEY, Director of Development, John Carroll University.

what is going to happen in the *early* tomorrow. The enrollment pressures are already upon us and will multiply in a kind of inexorable geometric progression from the 1960s on.

Since the Council for Financial Aid to Education opened its office five years ago we have felt that urgency. Walter Lippmann had already sounded the tocsin in about these words: "There must be a breakthrough in public understanding and support of higher education to a radically new and higher plane."

That is why we knocked on the door of the Advertising Council about three years ago and were fortunate in being granted an all-out nationwide public service advertising campaign on behalf of America's colleges.

But it wasn't easy to develop a compelling *action message* with which to galvanize public support. Just what would *you* say in a few simple words? And what would you realistically expect the *citizen* to do and how would you get him to do it? It took months to work out a copy platform. We, and the Advertising Council, received much volunteered help of the best kind obtainable in education and advertising.

Finally these goals were set up: (1) to hammer home to the citizens of America day after day, week after week, month after month, the crucial importance of higher education and the urgent need to support it, and (2) to generate a favorable climate for the solicitations of the individual colleges and universities—"to make hay under the national advertising sun."

To reach these goals the campaign made three points: (1) we must prepare today for increased enrollments tomorrow; (2) we must strengthen college facilities now, and (3) America depends upon higher education and higher education depends on *you*.

The whole copy theme may be summed up in this message which you have seen in the 90,000 transportation vehicles—trains, buses, trolleys—throughout the country: "When He Is Ready For College Will College Be Ready For Him?"

To hammer these points home all the media were supplied with elaborate advertising materials—mats, films, plates, car cards.

The result—\$81 $\frac{1}{4}$  million of *donated* advertising space and broadcast time by the media and by the national advertisers. Higher education indeed got a bargain. And what's more, we can now extend the multi-million dollar campaign through 1961.

But at best this national advertising could only warm the climate. The bell-ringing procedure was the only way the checks could be brought in for the colleges. This, then, left squarely up to the colleges the responsibility for cashing in on the valuable broadcast and space donations. To bridge the void between the national and local action programs, the CFAE sent out kits to colleges briefing them on the new ads and how these might be put to work locally by the colleges. Well, what happened?

At least 70 local action committees were formed by the colleges to create local backdrops for their individual solicitations. Four counties

in the Philadelphia area held a rally of trustees and prominent guests as a means of dramatizing the college appeals. Southern California developed a similar effort. Cleveland likewise showed how colleges and universities cooperatively could work in common cause to create widespread public interest, understanding and approachability and has formed a permanent commission with a full-time competent and experienced executive director. In some states such as Iowa, tax-supported and private institutions joined in state-wide crusades to mobilize public support—the first time such cooperative action had occurred in many instances. New Jersey had special educational needs common to the entire state and a special advertising campaign committee was formed and directed by a dedicated volunteer at the Newark College of Engineering.

In Akron, the University held an extensive campaign to persuade all the citizens—this time as voters—to support an increase in tax rates to provide for the University's expanding needs. It succeeded and the president, Norman Auburn, credits much of the success to the availability and adaptability of the national materials in telling an institution's unique story.

Has it paid off? The college presidents tell us prospective donors seem to be more receptive than before when approached. The gifts to higher education by individuals and corporations have more than doubled in the past two and one-half years since the campaign started. Businessmen feel the base of corporate giving has visibly broadened.

Such things might have happened anyhow. But there is reason to believe the campaign has done an effective softening-up job. Certain it is, the colleges are learning to get aboard and go places. Advertising in the nation's mass media has let people know the true magnitude of the higher education problem.

## **ANALYSTS' STATEMENTS AND RECORDERS' REPORTS**

The statement presented by the analyst or panelists of each group is immediately followed by the corresponding report of the recorder or recorders.

### **CHAPTER 1**



### **To What Extent Should National Manpower Needs Influence College Policies?**

**Philip M. Hauser**

*Professor and Chairman, Department of Sociology  
The University of Chicago*

**I**N THE INTEREST OF maintaining perspective it is imperative, in my judgment, to challenge the implications of at least three widespread *non sequiturs*, following Sputnik, which seem to be accepted even among educators who presumably should know better. The first of these is that Sputnik demonstrated a numerical shortage and qualitative deficiency in U.S. scientific and engineering personnel. The second is the assumption that U.S. education, both higher and lower, is inferior to education in the USSR, especially in the sciences and in engineering. The third is that it is incumbent on higher education to mend its ways in a manner better to help save the U.S. in the *race against time*, presumably manifest in the cold war, which could lead to ultimate Soviet supremacy in world power, and therefore to a Soviet type of world political, economic and social organization.

It is absurd to conclude that by reason of the great Soviet shoot launching the first Sputnik that American scientists and engineers or other type of personnel are short in number or deficient in quality. The failure of the U.S. to be the first in space rocketry, as it has been in many other scientific and engineering developments, could conceivably be, and probably was, not an indication of shortages or deficiencies in scientists and engineers but, rather, a manifestation of the way in which these human resources were allocated. Our scientists and engineers were busy

on other matters: on cramming more horsepower, chrome and larger fins into and onto automobiles; on doing useful things for American consumers and industry, and on doing other types of scientific and engineering tasks.

Second, the advent of Sputnik certainly provides no sound factual basis for concluding that U.S. education is inferior to that of the Soviets—in science or engineering or in anything else. This is not to say that U.S. education has no deficiencies or that it cannot be improved. But it is to say that Soviet achievement in relation to U.S. achievement does not necessarily throw light on the question. For there is a great gap between the character and quality of an education, and the manner in which educated manpower is utilized.

Third, the assumption that changed college policies might better meet national manpower needs—and thus, too, the U.S. relative position *vis a vis* the Soviets is also not justified by the events of the past year. For, to my mind, there is neither evidence to justify the assumption that U.S. educational policies are inadequate for meeting national manpower needs; nor to support the implication that modified college policies would necessarily better meet national manpower needs. It is always in order to consider ways of improving American education and of better meeting national manpower needs. But it is sheer hysteria to assume that the tackling of these problems is necessitated by reason of Sputnik or Mechta; that college policies need modification because of these spectacular Soviet successes. If college policies in respect of national manpower needs require modification, it is for other, more relevant reasons.

Let me turn now to a brief consideration of five questions growing out of the above remarks.

My first question is to what an extent does the current race against time with Russia arise from deficiencies of higher education in meeting national manpower needs? My belief is that this idea arises from feelings of deep concern and even fear of Soviet space rocketry and other successes as elaborated above.

It is an issue which deeply involves U.S. education—but not as an instrumentality through which manpower is trained to meet national needs. This is the easy and oversimple conclusion. It would indeed be a relatively simple matter to undertake to educate more proficient scientists, engineers and other professional college-trained personnel.

But the involvement of higher education in the race against time lies in another and more difficult field than the training of more proficient manpower. It involves higher education in that aspect of its task concerned with the transmission of values and goals; and with an understanding of the social, political and economic orders. These are much more complex areas of involvement than that having the training of scientists and engineers or even the development of natural science as its task. They are more complex areas because they are still areas of greater ignorance than are the natural science areas, and because they neces-

sarily entail the raising of basic value questions which are bound to challenge accepted notions in politics, in business and industry, in labor, in education itself and, indeed, in our society as a whole. The relevant aspect of the U.S. value system involved is that to which Adlai Stevenson recently referred as "paralysis of will," a phenomenon which *Life* magazine wisely noted as having "nothing to do with any deficiency of technology or resources."<sup>1</sup> Stevenson saw in the USSR "an overwhelming impression of thrust and purpose in most aspects of Soviet life . . . no effort, no dedication, no sacrifice is too great that may help realize the Communist party's goals in Soviet society. . . ."

The difference in the value systems of the U.S. and the USSR leads us to Cadillacs so long they can no longer be conveniently garaged, and to daydreaming about reduced federal expenditures, and possibly tax cuts even at the expense of no, or few, ICBMs. In contrast, it leads the USSR to a satellite orbiting around the sun and to ICBMs at the expense of the level of living of the Soviet people.

The next three questions I have posed can more quickly be dealt with.

The second question is, is there a national shortage in the number of college-trained members of the U.S. labor force, including scientists and engineers? The fact is that there are no facts which admit of a clear-cut answer to this question.<sup>2</sup> Even though other factors of the type I have outlined above may be more crucial in the race against time, facts about our professional personnel, including scientists and engineers, are becoming increasingly needed both for national defense and economic development purposes. Considerations of policy in respect of training, recruiting and utilizing such personnel would undoubtedly be facilitated if more data were available. Discussions of such policy matters, for the time being, involve debate about the facts themselves. And facts cannot be ascertained by means of polemics and majority vote. A program for the development of the needed facts is available. Until such facts are obtained, there is probably little point to our adding our opinions to the confusion which already exists.

The third question is are college- and university-trained personnel in the U.S., including scientists and engineers, deficient in their training and performance? The answer to this question is identical to that to the one above. That is, we do not have enough information to answer the question. We do have a blueprint for obtaining an answer.<sup>3</sup>

The fourth question is what should or could our colleges and universities do to increase the *number* and *quality* of college-trained personnel? It is more a technical question for educators and administrators than a value question. And it does not necessarily involve the assumption that more and better professional personnel are needed to help the U.S. in the race against time.

<sup>1</sup> *Life*, February 9, 1959, p. 31.

<sup>2</sup> *A Program for National Information on Scientific and Technical Personnel*. Washington, D. C.: National Science Foundation, August, 1958.

<sup>3</sup> *Ibid.*

The first part of this question, that relating to an increase in the number of highly trained personnel necessarily, in our society, invites the participation of the economist. For the determinants of the number of persons in any occupation in our society is in large measure a phenomenon of the play of the market mechanism. The analysis of the shortage of scientific personnel by competent economists, Blank and Stigler, led them to conclude there was no shortage as evidenced by market behavior.<sup>4</sup> Whether there is or is not a shortage, the point is that factors such as opportunity for training, salary rates, conditions of work, prestige and recognition levels, affect the supply of various forms of manpower, including college-trained manpower.

The government, under the pressures of the cold war and Soviet successes, has become interested in the question of the supply of college-trained personnel, largely for national defense purposes. The Final Report to the President of the President's Committee on Scientists and Engineers "strongly recommends that the federal government assume responsibility, in the Executive Office of the President, for coordinating and stimulating the nation's efforts in the development and utilization of highly trained manpower."<sup>5</sup>

To the extent that the government follows through on this recommendation the supply of college-trained manpower may be vitally affected. It will be affected in at least two ways: directly through the force the government will exert as an employer of such manpower; and indirectly through the influence which the government will exert on business and industry as consumers, and on institutions of higher learning as producers of college-trained manpower.

H. H. London, professor of industrial education at the University of Missouri and president of the American Vocational Association, was good enough to make available to me a manuscript of a forthcoming paper in which he urges a coordinated program of manpower management. Professor London sees his proposal as related to the "struggle for survival with Russia." London poses a key question which merits discussion in respect of any manpower management program. "One thing seems crystal clear in this struggle: we can no longer leave the management of our manpower to chance and the direction of our schools to the kids." The economist would certainly dispute the position that the supply of manpower is now a matter of *chance*. In such a dispute the problems which need attention would emerge. This would undoubtedly involve reaching some kind of balance in the mix of market play and *management*, as determinants in the supply of college-trained manpower by category. It is probably true that neither one alone exists now, or is likely to provide the answer.

<sup>4</sup> Blank, David M. and Stigler, George J. *The Demand and Supply of Scientific Personnel*. New York: National Bureau of Economic Research, Inc., 1957.

<sup>5</sup> *Final Report to the President*, President's Committee on Scientists and Engineers, Washington, D. C., Dec. 1958, p. 2 (Letter of transmittal).

The *quality* part of question four is perhaps of greater concern to educators than is the problem of number. The report of the Advisory Panel pointed to the inadequacy of information on quality as well as on supply and demand; and proposed ways of getting better information on the quality of educational curricula as well as of scientists and engineers. The Panel proposals are applicable to the consideration of the quality aspects of all college-trained personnel, as well as to that of scientists and engineers.

Finally, the fifth question is what should or could colleges and universities do to maximize effectiveness of allocation and utilization of the more highly educated part of the labor force? With respect to *allocation*, the major contribution of institutions of higher learning may lie in the influence they exert on value systems as discussed above. The colleges and universities cannot directly determine what proportion of our college-trained human resources should go to the production of automobiles and TVs, as against ICBMs and college faculties. But they should probably do more than they have done to make both the problem and the consequence of alternative answers clear to the entire nation. The society characterized by a *surfeit of honey* is not necessarily that which will win the race against time.

The *utilization* of college-trained personnel also falls largely outside the province of institutions of higher learning. Universities cannot control the *hoarding* of engineers and mathematicians by firms which anticipate bigger defense contracts; or directly affect the definition of jobs in industry, drawing cutting points between the tasks of the scientist and of the technician, or of the engineer and the salesman. But they can, by means of research, help to illuminate the problem and the consequences of alternative decisions.

In general, my answer to question five is that the college can do little directly to influence the allocation and utilization of college-trained personnel; despite the fact that the allocation and utilization of these scarce human resources may affect the race against time more than immediate problems of supply or quality.

Institutions of higher learning probably already turn out the necessary number and quality of college-trained personnel, both to maintain a high level of living and national security. Our present value system is such, however, that we seem to be willing to risk national security for the *surfeit of honey* of which 300 horsepower automobiles, dreams of reduced federal expenditures, and lowered tax rates are symbols.

Colleges, it goes without saying, should operate to meet national manpower needs—and they do. Moreover, they should always strive for improved methods of meeting national manpower needs for there is always room for improvement. But the ways and means of effecting such improvement are not likely to be found in hysterical reactions to Soviet successes in science, politics, production or anything else.

## National Manpower Needs

**Richard G. Axt, RECORDER**

*Associate Director, Western Interstate Commission for Higher Education  
Boulder, Colorado*

COLLEGES AND UNIVERSITIES should participate in the process of developing a national manpower policy. They need to influence the necessary federal interventions in what must otherwise continue to be a free labor market.

If there is an immediate shortage of scientists and engineers on defense projects, the federal government could place a few large *crash* contracts. This is a problem of short-range federal manpower policy.

There is a *marketplace*, in longer range terms for highly-trained manpower, but there is some doubt that any one agency or organization would be able to predict future manpower needs in accurate detail. This is especially true in the absence of reliable data on present manpower demand and supply, much less extrapolations into the future. A comprehensive program of research and data collection is indicated to obtain much-needed facts.

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NOTE: Chairman of Group 1 was M. H. TRYTTEN, Director, Office of Scientific Personnel, National Research Council, Washington, D. C.



## To What Extent Should National Needs Determine the Nature and Purpose of the University Research Program?

**Lowell T. Coggesshall**

*Dean, Biological Sciences and Medicine, The University of Chicago*

**M**OST IF NOT ALL universities have policies which assure the freedom of their investigators to conduct nondirected research, as well as the unrestricted dissemination of the knowledge gained therefrom.

Until about 1940 universities and the government, as far as research is concerned, were for the most part uninformed about each others' activities. Government investigators worked mostly along applied and developmental lines and followed traditional patterns. The university scientist worked chiefly in the basic areas and felt little inclination or compulsion to explain his plan of action or objectives, except to his closest colleagues. Annual progress reports were almost unheard of.

Today the situation is quite different. Research is everybody's business. Modern communications have the public waiting almost breathlessly for the outcome of previously-announced projects. It is a rare scientist who does not possess one to three research projects, all of which have been carefully justified in advance with considerable detail in writing. The public is frequently aware of his intentions as soon as, or sooner than, his scientific colleagues. We are in the midst of a scientific, technical and communications revolution. Government has always had an interest in science but for the first time is demonstrating this in a tangible manner.

Perhaps implied in these remarks is a critical attitude toward the developments which have resulted in the present atmosphere. This is not the case. Perhaps we prefer otherwise, but public enlightenment is essential to government assistance in research. Back of the headlines we must recognize the interest of the public in the support of research as evidenced by the ever-increasing appropriations from Congress and the voluntary philanthropies, particularly in the health field.

The true assessment of conditions today under which universities conduct their research programs is not one of whether or not the government's needs should influence university research programs. Actually they do, and to believe otherwise would be unrealistic. For example, the government in 1957 used approximately \$964,000,000 in research, \$746,000,000 for applied research and \$218,000,000 for basic research. For

each of these dollars, 67 cents went to the physical sciences, much of it for development research and expensive hardware, 29 cents to the biological sciences and four cents to the social sciences.

Of this almost one billion dollar total federal obligation, almost one-half billion went to institutions of higher learning or laboratories under their management. Probably up to 70 per cent of all university research and development is financed by the government today. I think everyone would agree that the government now has a permanent interest in science and that this interest will be further demonstrated by increasing annual appropriations.

It would be my contention that our government's needs, particularly in this reign of the cold war, must to a considerable degree be satisfied by university scientists. Shortly after World War II there were a few predictions, particularly in relation to classified research, to the effect that if the university scientist participated there inevitably would be a loss in the integrity and purpose of the university. Although there were difficulties and handicaps, this dire prediction did not follow, probably because of the government's gradually enlightening policies with respect to scientific research in the university.

As Alan Waterman, director of the National Science Foundation, pointed out, much of this can be attributed to three reasons:

1. The increasing participation of scientists in government policy and administrative matters
2. The placing of major scientific developments that are closely related to the military under civilian control
3. The policy of supporting uncommitted research and fellowships in the nation's colleges and universities.

Under this plan I think all would agree that, particularly within the last 10 years, there has been an enhancement and crystallization of these policies which have enabled the university scientist to contribute in a major way to the needs of the nation and, at one and the same time, permit him all the freedom, or perhaps even more freedom, than he enjoyed under other forms of outside support.

One can assume a defensible post on almost any aspect of the question as to whether university research should be sensitive and responsive to our national needs. It is my conviction that our welfare is completely dependent upon a degree of unity—or certainly upon an interdependence—between government and university, as well as private foundations, research institutes and industrial organizations. As a nation we must have new information, and the wellspring of research talent, upon which advances of knowledge depend, rests in the university.

We have to admire the British university grants system. Their pattern of direct subsidies seems to have been very effective, yet jealously self-governing, and probably their chief virtue lies in the retention of responsibility where it belongs—in the university. We are probably not prepared for their system—and I am not advocating it at this time. The point is

that government and university can work in harmony. It can be done if neither seeks to exploit the other, or succeeds in so doing.

To summarize, I believe at this time the needs and demands of society can no longer be satisfied by university endowments or by philanthropies from our more affluent citizens. The nation's needs, as far as research is concerned, are not competitive or incompatible. National needs should affect our university programs, but not necessarily adversely. However, it must be made absolutely certain that, without any reservations or misunderstandings, the university has the right to select and conduct its own programs of undirected research.

The following questions may prompt additional thoughts on this important subject:

1. Can universities accept substantial federal funds without altering the direction of their research programs?
2. To what extent do federally-sponsored institutes or named projects disrupt the regular university program?
3. Is the *matching* principle important in accepting federal funds for research?
4. Should the universities attempt to persuade the government that broad-base grants are essential in preserving some balance between disciplines?
5. To what extent does the lack of uniformity of operating policy by the various federal departments and agencies impair their objectives?

### **National Needs and Research Programs**

**Edward F. Potthoff, RECORDER**

*Director, Bureau of Institutional Research, University of Illinois*

ALTHOUGH MUCH of the research required to satisfy national needs is going on in industry and in federal agencies, a great deal must also be carried out in our universities. The government, which inevitably must turn to institutions of higher education for much of this work, is increasingly sponsoring more fundamental research and more research in the social sciences.

Colleges and universities which undertake federally-financed research must be alert to certain problems and dangers which it presents. Such research, however, not only can go on in our universities without danger of harmful effects, but can be advantageous—expensive equipment is made available, problems are supplied for graduate student dissertations, findings spill over into teaching, and local research funds are stimulated. There is need, however, for more *broad-base* grants, for at least minimum grants to institutions with limited resources, and for grants on some kind of matching basis.

NOTE: Chairman of Group 2 was BRIAN A. MCGRATH, S.J., Academic Vice President, Georgetown University.



### To What Extent Should National and International Needs Increase the Obligation of the College to Develop Leadership in Public Affairs?

**Robert J. Blakely**

*Vice President, The Fund for Adult Education  
White Plains, New York*

ITS ACHIEVEMENTS IN rocketry have come to symbolize the Soviet Union's seizing the initiative in technology from the United States. Since the early fall of 1957 the American people have paid unprecedented attention to education as a means to enable us to regain the initiative. Many spokesmen advocate *crash* programs to produce mathematicians, scientists and technologists to serve narrowly practical functions. These have been answered by many others who emphasize the need for broadly educated and skillful, proficient people in all roles of life—particularly in the roles of public decision-making.

However, even those who are concerned about the broader aims of life and education tend, with few exceptions, to think of *education* in terms of *formal schooling*. This shortened conception of education, as a process preparatory for children and youth, is also inadequate. The challenge to the American people must be faced by *those who are now mature*. Those who are now mature and those who are maturing will be equal to the test only if they educate themselves *continually*.

Adult education is very extensive in the United States, and it is expanding. But the bulk of it is in the service of the interest of individuals or organized groups—very little of it is addressed directly at the goal of improving the quality of public leadership.

One would have to believe in a special providence for the American people to assume that we can continue this neglect and continue as a free people. Because of our reliance upon initiative, voluntary action and consent, because of the wide diffusion of participation in decision-making in the United States, our need for leadership is greater than that of other societies.

Attention to effective public leadership would seem to be peculiarly appropriate for a college or university. Such tasks as analysis of the qualities and processes of leadership, the motivation of able people to take part in public affairs, the preparation of public leaders to perform effectively and continually to prepare to perform more effectively—such tasks as these are more obviously worthy of a college or university than

many of the lesser tasks they have undertaken with vocational and professional groups.

In providing educational opportunities for public leadership, the college or university will necessarily have to work closely with many other institutions, agencies and organizations—governmental and nongovernmental: businesses, departments, professions.

It is important to keep several distinctions in mind. The goal is to produce, not more effective specialists, though this will probably be a by-product, but more effective generalists. Although many of the qualities of a liberal education are involved, the goal is less general and more sharply purposeful than that of a liberal education. Although many of the abilities that are needed to serve special groups are involved, the goal is service, not to corporations, unions, organizations, *etc.*, but to the nation. Both academic study and supervised practical experience in leadership situations are called for.

The challenge and threat from the Soviet Union are the *occasion* for our response to the need for education for public responsibility. They give urgency. But they are not the *cause*. The cause is inherent in the nature of a free society, in the complexity of the modern world, and in the power and obligations of the American people.

### ***Education for Public Responsibility***

**J. Cloyd Miller, RECORDER**

*President, New Mexico Western College*

THE COLLEGE should develop leadership in public affairs through an undergraduate program of broad general education, with graduate preparation in special fields.

Faculty members should have a consciousness of the things involved in preparing students for positions of responsibility and the ability to inspire these students to prepare for such positions.

Persons now working in the field of public affairs should be provided educational leaves of absence in order to broaden and liberalize their training. This preparation should be directed at developing open minds, sensitivity to other people, and the ability to communicate.

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NOTE: Chairman of Group 3 was HARLAN CLEVELAND, Dean, Maxwell Graduate School of Citizenship and Public Affairs, Syracuse University; resource person was JAMES A. DONOVAN, JR., Assistant Chief, Leaders and Specialists Division, International Educational Exchange Service, Department of State, Washington, D. C.



## To What Extent Should National Needs Affect the Role of the College Trustee?\*

**Eugene B. Power**

*Member, State Board of Regents, Ann Arbor, Michigan*

FOR A NUMBER OF years educational leaders and population experts have warned that, beginning with the year 1959-1960, colleges would experience the first of the oncoming wave of students which, by 1970, will result in doubled enrollment in our institutions of higher education. This assumes, of course, that only the same percentage of high school graduates will go to college then as now. If the percentage increases, as is likely to be the case, the task facing colleges and universities will be even greater. Add to that the fact that our society is becoming increasingly more complex. The young people of today must be better trained than we were, with better facilities and better teachers.

It is from this unprecedented and sudden increase in student enrollment that the major problems facing institutions of higher education arise today. Harvard is conducting a drive for \$82 million to increase faculty salaries and to build additional facilities. Every college and university is apprehensive lest its financial support prove inadequate to meet the rising need for more and better teachers, expanded laboratory and classroom space, and sufficient books.

Inevitably, as the enrollment pressures increase, higher standards of admission will be applied with resulting disappointment and heartache. We must therefore take a long look at our methods of selection for admission. Perhaps selection on the basis of scholastic aptitude alone is not sufficient.

Governmental officials and legislators are overwhelmed by the prospective budgets to be faced in coming years, and are seeking ways in which the expenses of education can be reduced. We have seen a concerted effort by the Council of State and Local Governments to sponsor organizational changes in the make-up and responsibilities of our boards of trustees in the expectation of reducing the financial burden. Already some states have enacted laws providing for over-all coordinating boards established by the legislature in the hope that this will reduce expenses.

Many states are now exploring new sources of tax income. Some of them are experimenting with increases in the sales tax, the income tax,

\* The actual title of this paper was "National Issues in Education as They Affect the Role of the Trustee."

some with dedication of certain taxes for purposes of higher education. All of these are possible sources of revenue and it is increasingly essential that the trustee be acquainted with developments of this kind. If the institution is a private one, then the trustee must acquaint himself with different sources of support. If it is a publicly-supported institution, he must establish and maintain contacts with governmental officials responsible for appropriations to be certain that the true needs of his institution will be understood and properly interpreted.

Depending upon the degree of financial support, other serious problems loom greater or less in their importance. The adequacy of buildings and the recruiting of competent teaching staff are dependent upon financial support.

In the interest of economy, it would seem that the trustee must be open-minded to change in educational programs and techniques. He must be receptive to new methods as they are introduced, be willing to see them tried, and capable of assessing the results impartially. I refer to such things as visual education, television, honors courses—all of which have a bearing upon the number of students we can teach and on the quality of education we can give them.

A frequent criticism these days is that institutions fail to cooperate with each other, each wanting to be complete and unique unto itself without regard for the needs of the state or local area and without consideration of the resources which are available. It is this chauvinistic indifference to the total need of a state or region which, more than anything else, is responsible for the increasing interest in over-all coordinating boards.

Most trustees represent the public interest in their institution and as such it seems to me necessary that they must be concerned increasingly with the needs of their state for higher education, viewed as an educational district, rather than the narrower needs of their individual institutions. Certainly, with the burden being placed upon government and endowment income, it is impossible for all institutions to duplicate resources in terms of equipment, buildings, and faculty. Rather, the time has come when, like the Southern Regional Education Board, resources available must be distributed according to a plan in which all institutions in the area participate.

Involved in this problem, too, is the matter of federal support for higher education. Certainly one's innate spirit of independence would prefer that support come from his own local government rather than from Washington. Increasingly, however, we are realizing that a poor education level in one state has an adverse effect on every state in the Union and, more importantly, upon the national welfare. Further, we must realize that the federal government has a taxing power not available to the state.

Consequently, it is necessary for the trustee to be familiar with the implications of federal aid so that he may decide for himself and his institution whether or not the institution wishes to accept it. The oath

and affidavit required by the recently passed Defense Education Act may rightly cause some concern in the minds of the administrator and trustee.

Harlan Hatcher, President of the University of Michigan, recently said:

The two leading powers in the world today are the United States and the USSR. We have reached our supreme position as a result of determined effort through successive generations to educate our young people to the limit of their willingness and their ability and to extend the boundary of knowledge through research.

The Russians saw with perfect clarity that this was the secret of our greatness. Lenin pointed it out, Stalin preached it, and Khrushchev pounds away at it: Education is the key that will unlock the door to greatness. Overtake, surpass, master the Americans! And 41 years of this commitment and drive and necessary financial and emotional support have driven the USSR forward into its present challenging position.

The Russian challenge, I believe, should stimulate us to a healthy reappraisal of what we want for our program of higher education. Are we interested primarily in vocational training of the sort which will enable a graduate to get a job and earn a better living? Or are we interested in providing the kind of education which will teach a student to think for himself, to reach independent judgments? In other words, to develop ethical standards by which he judges his own behavior and that of his fellow man, and takes his place in society as an educated, cultured person. Do we feel that in the face of increasing enrollments we must of necessity raise our standards of admission, and take relatively fewer people in terms of population?

We have heard much of the rapid strides being made in various fields of science, and of the growing tendency to emphasize the scientific approach to the solution of human problems. I offer a word of warning: it is equally important that man learn to control and live with his scientific discoveries as it is that he should discover them. Therefore, I urge that we maintain a balance between science and the humanities.

Some years ago I read a book entitled *That Hideous Strength* by C. S. Lewis,<sup>1</sup> in which he described the struggle between the forces of Good and Evil in England at some future date. The scientific was epitomized by the National Institute of Cultural Experiments. The Institute could coin its own currency, pass its own laws, and had its own police. In fact, it was free to do anything it deemed necessary for the good of science. In the course of this struggle, the right to think and speak one's conclusions freely were in great jeopardy.

George Orwell dealt with somewhat the same subject in *1984*.<sup>2</sup> This is a point upon which trustees must be ever zealous. The faculties and students of our universities and colleges, more than any other section

<sup>1</sup> Lewis, C. S. *That Hideous Strength*. New York: MacMillan, 1946.

<sup>2</sup> Orwell, George. *1984*. New York: Harcourt and Brace, 1949.

of our society, must be absolutely free to investigate, to discuss and to report their conclusions freely and without fear or restraint. Anything which limits this search for truth in any way casts a serious blight on that delicate flower of creative thought which is so easily stifled. It seems to me the trustee must be ever vigilant to see that the rights of his faculty in this respect are protected.

These are some of the problems which face institutions of higher education. Indirectly, each is of vital concern to every trustee. Although he may not be directly and immediately concerned, it is his responsibility to make sure that the administration of his college has his support. To do this he must be informed, he must be in contact with those who make the decisions on financial and other matters, and he must keep actively aware of the needs of higher education today.

In the carefully chosen words of Barbara Ward Jackson, "The environment of the twentieth century is not designed for the static, the stagnant, the complacent, or the smug. It is designed for men who dare greatly and dream greatly and let their work catch up with their dreams."<sup>3</sup>

### **National Needs and The Role of the Trustee**

**Thomas B. Schlesinger, RECORDER**

*Assistant to the Director, Division of Interpretation  
Colonial Williamsburg, Williamsburg, Virginia*

THE THORNIEST PROBLEM faced by the trustee of a state-supported college or university is the avalanche of oncoming students. It is essential that the role of public institutions in the over-all pattern of higher education be determined, desired standards established, and policies set for meeting the new crush. Present admission standards must be re-evaluated in the light of all relevant factors. The new admissions policies will affect and even determine future physical facilities, the number and type of teaching staff, and the financial support needed.

Coordination of thought and action among trustees, faculty, and administrators of the colleges and universities within each state is necessary in meeting this new challenge. Each state should evolve its own system on the assumption that its situation is probably unique.

<sup>3</sup> Barbara Ward Jackson is Foreign Editor, *The Economist*, London, England.

The trustee must face up to the problem and necessity of maintaining a balanced curriculum between the humanities and the sciences. He must be sensitive to the many potential solutions to the problem of rapidly increasing enrollments.

Also of vital importance in the present emergency is the obligation of the trustee to ensure the freedom of his faculty and students to investigate and to speak conclusions without interference. The trustee is frequently unaware of the importance of this obligation as well as of the wisdom of communicating to faculty and students the realization that freedom carries with it certain duties and obligations.



## To What Extent Should Students Be Indoctrinated in the Values of a Democratic Society?

**Ernest O. Melby**

*Distinguished Visiting Professor of Education  
Michigan State University*

I DISLIKE THE WORD indoctrination because it denies me and my students the freedom to learn, to educate ourselves. I say "educate ourselves" advisedly because as I see it there is little learning unless teacher and student learn together—in fact, learn from each other. Moreover the teacher cannot educate the student. The student must educate himself—the teacher can only help. But the student cannot fully educate himself unless he is free to open every door and every window on the world of human thought. This concept of freedom to learn seems to me one of the essential principles of free society. If then, the word "indoctrinate" is changed to "educate" the question raised above takes on a different significance. To what extent should students be educated in the values of a democratic society? My answer would be "to as great an extent as possible."

A democratic, open and free society rests on faith in people, in their capacity to develop their own criteria of truth and value. This means we believe in the liberation of human intelligence. We believe our children and youth will one day solve problems now beyond us. At the same time we respect the worth, dignity and sacredness of every individual human being. We see this individual as unique and creative. Our education must minister to this uniqueness and creativity. Indoctrination may violate human individuality. It may obstruct the scientific process. It rests on fear, fear that without it people may think the wrong thoughts, come to the wrong conclusions and take the wrong actions. Fear accompanies all dictatorship, all authoritarianism. True freedom is characterized by faith, confidence, security and calm resolution. A genuinely free society not only thinks it is safe to liberate human intelligence, it holds there is no other safety.

Often, however, those with many fears about the ultimate survival of freedom will ask "are there then no basic assumptions?" Of course there are, such as faith in people, respect for the individual, dedication to the search for truth and human love and understanding. The success of a free society will depend on the degree to which these assumptions are meaningful and operative in our individual and group life. And if these ideas are taught, you may say, does not this constitute indoctrination?

Here we turn to the method of science, the dedicated single-minded search for truth. This search may take many forms. For example the physicist and the painter are both seeking a new reality. In either case education to prepare one to seek the truth is education to make indoctrination less likely. Taking some liberties with the words one might say that a truly democratic, open, and free education is *indoctrination* against *indoctrination*. This is, in a sense, a built-in characteristic of education in, under, and for freedom.

But now people will ask how? And to answer that question we must turn to the great issues of our day and to what we know about human beings and human learning.

The state of the world we confront is such that we can no longer seriously accept an education which leads to knowledge and skill alone. No matter how important we may think it is to educate the intellect we dare not educate the mind alone. Seen in the light of a quest for a peaceful world, racial understanding and honest government, knowledge is not necessarily power. The reduction of world and domestic tensions awaits altered human attitudes and altered human behavior, and attitudes and behaviors come more from the way we live than from what we read, listen to, or pass examinations upon. Our attention must therefore be directed to the life of the school, of the university and of the community.

Unfortunately, we already suffer from an excess of verbalisms that have little meaning in terms of our various behaviors. The very fact that we utter the verbalisms so often and so glibly calls all the more striking attention to our failure to practice what we preach. In addition, our preoccupation with *how* as opposed to *what* and *why* has fragmented and overspecialized nearly every aspect of our life. The result is not only that specialists often cannot talk with each other. Even when they do communicate, they speak from a truncated view that is largely starved from lack of contact with the other disciplines that could nourish their specialization with new outlooks and insights. In a sense, overspecialized education has some of the limitations of indoctrination, in that the student gets from it an unbalanced view of his world.

Add to overspecialization that growing spirit of conformity, the increasing peer group dominance among youth, the increasing dependence of leadership on group opinions and group process and we will find that "our great challenge is to rescue the individual—to escape from the pretentiousness and the stultifying quality of an atmosphere in which all sense of reverence for the unique is lost in the quest for reducing everything to manipulable quantities."<sup>1</sup>

No matter where one turns today in the life of the country and the free world he will see the weakening effect of the absence of purpose. Without purpose we quickly arrive at a pretty low estimate of a personal

<sup>1</sup> Kissinger, Henry A. "The Policymaker and the Intellectual." *The Reporter*, March 5, 1959, p. 35.

opinion and an excessive recourse to group process and committee action. On a world-wide basis the legislative branches of governments are on a rampage. They won't let the executive govern and they can't themselves govern.

What we need is an education that will help us to rediscover the dignity and worth, the creative potentiality, if you please, of the individual. Such education is exactly opposite to indoctrination. Its purpose is to develop the individual man who is at one and the same time the democratic man, the world man and the free man. This man will know the meaning and history of our free heritage. He will have seen it through the windows of philosophy, political science, art, music and many other areas of man's culture. But equally important he will himself have tasted freedom, in his home and in school life from kindergarten through graduate school. In all of these aspects of his life he will have been in the process of discovering his world and will thus have been inducted into the spirit of science. He will have lived creatively with his fellow students and teachers and thus have acquired a respect and love for his fellowmen.

By now you no doubt suspect that I am about to place the teacher in the center of the stage in the whole program of educating people in the values of a democratic society, and you are right. We are not educated by courses. We educate ourselves with the help of men—men who are learning, men whose vision lifts our ceiling and extends our horizon. But the great teachers are men who care, who love both their subjects and their students. Since faith, respect for individuals and for truth together with love are the basic ingredients of viable free society, these are also the elements of a creative educational environment. The really creative educational environment must encompass the larger community for, whether we like it or not, this community is playing a larger role in shaping the values men live by.

At a time when critics tend to confuse us by calling for a skill and subject matter preparation designed to equip people to serve the state, a time when our basic values of freedom are threatened by statism abroad and materialism at home, a time when the gap between what we say and what we do is so great that people struggling for freedom, whom we used to inspire, are turning from us—at such a time we need to recapture our heritage and build our education in the image of freedom. It is the genius of our value system that when built into an educational program it opens mens minds to new ideas and mens hearts to their fellowmen. As believers in freedom we properly fear indoctrination but we need have no fear of education, though some do. On the contrary, a democratic, open and free education can not only bring survival but new dimensions to freedom.

### *Achieving Democratic Values*

**Charles G. Gomillion, RECORDER**

*Chairman, Division of the Social Sciences, Tuskegee Institute*

AMERICAN HIGHER EDUCATION must strive to educate, rather than indoctrinate, students to as great an extent as possible in the values of a democratic society. In this educational process, the teacher is the central factor in helping students to utilize effectively the opportunities and resources available by which they learn and accept democratic values.

Because the values of students tend to be influenced by what teachers do, as well as by what they say, teachers might be more influential in inculcating democratic values if they participated actively and democratically in the civic affairs of the community. College teachers must not only believe in freedom and equality of opportunity, but they must seek to extend and safeguard these values in the communities in which they live and work.

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NOTE: Chairman of Group 5 was ROBERT F. DAVIDSON, Chairman, Department of Humanities, University of Florida.



## *Can Student Individuality and Creativity Be Maintained in the Face of Pressures for Conformity?*

**Philip H. Phenix**

*Dean of the College, Carleton College*

**W**HAT ARE SOME OF the specific forces which are working in today's world to create the mass personality? That there is a tendency toward collectivization and regimentation in many segments of modern society is generally acknowledged. Time and again observers have warned of the prevalent dehumanization of mankind. Martin Buber contrasts the truly personal "I-Thou" relationship of the community of real selves with the "I-It" association of mere intelligent organisms. David Riesman holds the mirror up to the other-directed members of the lonely crowd, who have forsaken the guidance of an established tradition or of an inner compass and who have not been able to establish genuine personal autonomy. Erich Fromm similarly portrays the attempt to escape from the freedom of creative individuality by surrendering to the marketplace orientation of adjustment to the existing social environment.

In virtually every domain of contemporary life this struggle between conformity and individuality is manifest—in the life-and-death contests between the collectivism of both left and right and the liberal democracies, in the rivalries between economic planning and free enterprise, in the tension between institutional or creedal religion and the spirit of religious protest, and in the dialectic of confident rationalism with existentialism either courageous or despairing. The educational scene is not without its evidence of these oppositions. How could it be otherwise, when the educative enterprise is so deeply embedded in the web of culture?

Thus, as we discuss conformity and individuality in higher education, we should remember that this is not a problem distinctive and peculiar to the colleges and universities but one which pertains to the whole social scene. Consequently, both in analysis and prescription it is important to consider not merely internal policies and practices in educational institutions but the broad patterns of thought and action which characterize contemporary culture.

I would like to examine two assumptions implicit in the over-all topic: first, that individuality and creativity are always desirable educational objectives, and that conformity pressures ought always to be resisted;

and second, that individuality and creativity are not compatible with conformity.

No educator in his right mind would advocate unrestrained student nonconformity. Certain kinds of conformity are necessary if the college is to survive. Extreme individualism would mean anarchy. Any social institution can prosper only if there are well-defined regulations to which its members adhere. It follows that conformity is not bad in itself. On the contrary, it is a personal and social necessity.

Neither is creativity an unqualified good. Criminals and delinquents are creative, but their creations are unwelcome. Sheer dynamism is not always desirable, nor are originality and novelty necessarily preferable to faithfulness to a tradition. The dogma that something new is surely better than something old is even more questionable as a general principle than its converse.

The goal of education is not to promote individuality and creativity and to eliminate conformity, but to encourage the right kinds of individuality, creativity, and conformity. Individuality (or creativity) and conformity are not intrinsically antithetical to each other. In their proper forms they enhance and ground one another. No person can be truly creative unless he conforms to certain conditions. The strenuous disciplines required of all who would enter the fellowship of creative artists or scientists amply illustrate this mutuality. To be truly an individual is not to exist in isolation but to conform to that complex of productive relationships by which the good society is constituted.

We have the task, then, of distinguishing between the good and bad individualisms, creativities, and conformities in higher education, and this takes much more discrimination than a wholesale acceptance of one and rejection of another. What forms of each are good and bad in college life today? Might we agree that conformity is only good when it is voluntarily chosen and not enforced? And yet, would we entirely dispense with compulsion, even on the best of campuses? Also, may not the student freely conform in ways which are not conducive to his best interests as a person? Perhaps intelligence is the criterion we seek. Is conformity desirable when it is chosen after careful deliberation? Is individuality good when it is rational and is creativity good when it is intelligent? Or are there forms of individualism which are enlightened but still immoral and types of creativity which are informed yet in need of redemption? These questions are not easily answered. Still, we should make the attempt and thereby to some degree improve the clarity of our educational goals.

What are the major influences which engender individuality, creativity, and conformity in students? First let us consider forces exerted from outside the academic community itself. One of the major external agencies is government. Powerful Congressional investigating committees, for example, can cast a spell of fear over schools and colleges, shrivelling the creativity bred of freedom and confidence. Few students will take the risk of independent thought and action if they must constantly safe-

guard themselves against every possible future investigator's adverse judgment. One of the problems facing educators is how the colleges can protect students from these threats. What can be done to give them some sense of security against unwarranted scrutiny by government agencies? We can hardly avoid the very large question of how government should be related to higher education. Are private colleges in a better position than public ones to resist the would-be thought-controllers? Does the extension of federal financial assistance to higher education portend more control of educational policy by governmental agencies? More specifically, what is likely to be the effect on student conformity of the affidavit and loyalty oath required in connection with the student loan program of the National Defense Education Act of 1958?

Government may also free a student for creative endeavor. Surely the GI Bill worked to the advantage of the individual and did not enforce uniform standards. The continuing fight by federal agencies against racial discrimination is a further example of greater individual opportunity opened up in higher education by government influence. Other ways may also be cited whereby government works for good individuality and beneficial forms of conformity.

Another important external force is exerted by prospective employers. Most college and university students pursue their studies with an eye to the future. As Earl McGrath and others have persuasively demonstrated, higher education, even in liberal arts colleges, is to a considerable extent vocationally oriented. For this reason the expectations of employers regarding the products of higher education will greatly influence the educational process. If we do, indeed, inhabit a society of "organization men," as William Whyte has depicted them, then we should not be surprised to find students seeking to learn how to conform skillfully to the requirements of the organization. Nor is this necessarily a matter for regret. Ability to cooperate effectively with others and to respond with sensitivity to the demands of a properly articulated social structure is a high attainment. Recently, too, some employers in examining more profoundly their own organizational assumptions have become champions of individual creativity, and in so doing have thrown their influence on the side of *liberal studies* rather than technical training in higher education.

Business and industry, but especially the great philanthropic foundations, have exercised great influence on the direction of higher education through their patterns of financial support of education. It would be interesting to study the ways in which their contributions have encouraged creativity and individuality—as in the case of grants of unrestricted funds or rewards for true originality—and the other ways in which the conditions of their gifts have fostered rigid conformism and academic sterility.

Other influences beyond the college community, such as parents, alumni, and the mass media, also have their effects on the creativity of students. These agencies may act in a variety of ways, stimulating constructive individuality or abetting lawlessness, driving students to blind

conformity or encouraging intelligent socialization. Each is worthy of thoughtful examination as a factor in the cultural ecology of higher education.

There is not much the educator can do about the external pressures. He may only try to understand them, to make use of those he deems constructive, and to counteract those which appear undesirable. He can deal more directly with the conditions within the college community itself. First, he may examine the curriculum as it affects student individuality and creativity. A college in which a fixed and prescribed course of study is ordained for everyone certainly fosters a kind of conformity. But we should not too quickly conclude that this is necessarily a bad conformity. It might be argued, for example, that the study of certain great books is the surest foundation of the truly civilized personality. On the other extreme, a purely elective curriculum would appear on the surface to be the best guarantee of individuality. But this is not necessarily the case. License in course election may subject the immature student to the tyranny of his own prejudices and lead him merely to conform to current tastes and fashions.

The objective in curriculum construction with respect to the problem of student conformity, is to make profound rather than superficial provision for individuality through placing demands on the student which will awaken the deepest creative resources within him. This suggests not only provision for course and major field election to allow for differences in interest and talents, a well-conceived advisory system, and special programs for students of exceptional ability, but also certain studies required of all, to ensure the general education which is the foundation of a beneficial conformity.

It may be profitable to inquire also whether or not there are certain studies which, by their very nature, promote good individuality. Is it true, as some have contended, that the so-called "humane studies"—such as history, literature, philosophy, and the arts—cultivate the free spirit, and for that reason are essential ingredients in the curriculum of higher education? Do the sciences breed an impersonal, objective outlook which requires humanistic supplementation or can science also be taught as a truly liberating discipline? In other words, are the humanities necessary to offset the alleged dehumanizing influence of science and technology in modern education?

In addition to the course of study, the attitudes of faculty, and administration toward students are of great importance in relation to this problem. When absolute obedience and respect are expected and exacted from students, the result is conformity to authority. If the authority is exercised arbitrarily, unpredictably, or unjustly, students learn to conform passively, submissively, and unintelligently. On the other hand, authority wielded firmly but justly need not destroy individuality—despite the contrary insistence of some libertarians. Wisely administered authority may engender that definiteness of conviction and soundness of judgment which are the best ground for personal creativity.

A system in which students are under little restraint may also work in different ways. A very few able and mature students prosper most when left to their own devices. Most students, if given too much responsibility for their own life and learning, drift into conformity with some inferior standard and fail to realize their proper individuality and creative promise. To do their best, they need some discipline, some standard by which their achievement is judged and the community's expectation of them is expressed.

It would be interesting to examine various teaching techniques, such as lectures, discussions, and research projects in the light of the ideals of good individuality and conformity. Different procedures for evaluating students and the various ways of involving students in the government of the college may also profitably be analyzed. It is primarily in these matters of faculty and administrative attitudes and methods that substantial contributions to the solution of the problems of which I have been writing can be made.

Finally, within the college itself the *student culture* is a potent factor in respect to creativity and conformity. Often this influence is more decisive than that of the curriculum, the faculty, or the administration. For many students, the expectations of fellow students are far more influential than those of parents, employers, or members of the faculty and staff. In some colleges, the fraternities, sororities, and clubs so dominate their members' lives that all other influences pale into comparative insignificance. The result is conformity to divisive and inferior standards and loss of real individuality. In other cases the student is left alone and adrift, without opportunity for intimate associations by which his identity can be tested and confirmed. Some colleges have a student tradition of conformity in certain superficial marks such as dress and speech, with a more fundamental respect for originality and difference in idea and conviction. Other student cultures give lip service to diversity through carelessness about external traditions and customs but manifest a drive for conformity on the deeper level of governing values.

But the student culture must be considered in relation to the other factors already mentioned. For an effective educational program depends upon the creation of a community in which faculty, administration, and students work together for common objectives not wholly at odds with those of the surrounding culture. To sum up, the problem is this: Given the civilization in which we live, how and what shall we teach, how shall we administer, and what sort of student life shall we encourage so that we may promote good individuality, good creativity, and good conformity?

*Student Individuality and Conformity*

**Mrs. Dorothy V. N. Brooks, RECORDER**

*Dean of Women, Cornell University*

INDIVIDUALITY AND CREATIVITY appear as a flowering of the educational process. Creativity is that imaginative leap—the sudden synthesis—which is beyond critical thinking or an examination of alternatives. Colleges need to stimulate imaginative thinking and make creativity intellectually respectable; for the seeds are latent within many and only await a favorable environment for germination.

Factors inimical to creativity are pedantic teaching, the absence of zestful recognition of the inquiring spirit, the stultifying character of many examinations, the cut-and-dried nature of much laboratory work, and pressures for standardization among colleges.

The college teacher needs to make a frank self-inventory. How can he develop individuality and creativity in students? How can he show respect for the questions of the learner? How can he give enthusiastic recognition to the inquiring mind? How does he bring students to the threshold of their own discoveries with an enthusiasm for "going it alone?"

Before blaming student mores or pre-campus experiences for student conformity, the faculty should first be critical of its own susceptibility to conformity.



## What Should Be the Shape of Things To Come in the Humanities Curriculum?

**Robert Hoopes**

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**M**Y FIRST REACTION TO the above question is to invent a subtitle: "Or, what's going to happen, and why we can't do anything about it?" On reflection, it occurred to me that my reaction is, in some sense that I cannot yet adequately define, a humanistic one. It constitutes, among other things, an ironic commentary upon the fatuous and pontifically humorless solemnity of the topic, upon the notion that the humanities may ever again really hope for more than gratuitous handouts from curricular bequests and upon the comically unencompassable dimensions of the topic as they appear to one attempting to write a short article. My first impulse, in short, is to laugh at the windmill I am about to tilt at.

And I take that impulse, ultimately, as humanistic in nature. Surely our capacity to laugh at our problems is as certain an index as we have of our essential humanity. I sometimes think it is that capacity, as against what men have for centuries called "reason," that really does distinguish us from beasts, who most assuredly possess reason in rudimentary degrees, but who do not laugh in the face of obstacles. And is it not true that if we could not partially accommodate our problems and obstacles through laughter, either they would overwhelm us or we should destroy ourselves? In this sense our humanity *is* our armor.

But let me depart from impulses and first reactions. If I were to attempt a radically simple and literal answer to the question posed in the title of this paper, I should have to say that I think the shape ought to remain pretty much what it has always been—plus what gets added. And what gets added no one can know, except that it will consist of what stands the test of time, of those records that enlarge our insight into ourselves; those that do not will be discarded. It might get considered, but I do not think that a selective anthology of world literature under the title of *From Homer to Mickey Spillane* will ever appear. But that is only a guess. Spillane might very well get added, just as countless others got added only upon the verdict of posterity. It was Horace who asked:

*Si meliora dies, ut vina, poemata reddit, Scire velim, pretem charis quotus arroget annus? (If time betters books, like wines, let me ask what year of their age bestows value upon them?)*

The only answer is, who can tell? All we know is that more will, in fact, be added.

The humanities are not a set of subjects—a division of knowledge, to be sure, but not a set of subjects. Consider the way in which we have tried in colleges and universities to rescue what we are pleased to call “the unity of knowledge” from its fragmentation by specialisms. We set up something called general education, arranging things so that our students secure roughly equal exposure to the sciences, the social sciences, and the humanities. And we assume, provided of course our program is, as we say, *broad-gauged*, that our students will thereby comprehend something of the unity of Western Civilization. We may be quick to apologize that the tripartite division is only an administrative convenience, but the convenience is printed in catalogs studied by freshmen, it is invoked by advisers as they tick off units accumulated by their advisees under each of the three headings, and there are few students to whom it ever occurs that the division is not a real, an ontological, one. I never advised a student without the vision of Tom Sawyer collecting yellow and blue tickets flashing through my mind.

So then, my real suggestion as to what should be done about the curriculum is that we get rid of this nonsensical triune division, together with the assumption which underlies it; namely, that the humanity of human beings will increase in direct proportion to their study of literature and philosophy, and decrease in direct proportion to their study of physics and engineering. The true poles of organized knowledge are not three, but two:

The focus of one kind of learning is primarily mensurative; that of the other, historical. Both are the products of men. But in the one set of disciplines the search for objective truth is a search to reduce the human equation to zero, whereas in the other set of disciplines, which take time and history into account, though accuracy is essential, the purpose is, or seems to be, primarily to explicate the human situation.<sup>1</sup>

Consider another way of making the distinction. What we conventionally refer to as the humanities—history, literature, art, music—may be called an organization of conscious experience in which there is preserved the sense of direct perception of that experience: including our wonder, reflection, and all of the nuances that keep our consciousness of experience one of simultaneous awareness, fear, and love of the things that pass and the things that remain. The great humanistic document never permits us to forget the presence of its creator, of man the perceiver of and reactor to the passing experience he seeks to crystallize and make permanent in his work.

Science, whatever else it is, and it is of course much more, is a descriptive and analytical account of being and behavior, in which, *so far as our study of it* is concerned, the presence of the scientist, as man observ-

<sup>1</sup> Jones, Howard Mumford. *American Humanism* (World Perspectives, XIV, Ed. Ruth N. Anshen). New York: Harpers, 1957. p. 76.

ing, is of no consequence whatever. As we study science, the presence of the scientist is not an element in our experience—though it is, of course, when we study the history of science. But the history of science belongs to the humanities, which represent the study of Man in time. To borrow once again from Mr. Jones:

The whole dependence of this knowledge, its whole significance is a function of time rather than of quantity . . . ; its meaning is a genetic meaning valuable in proportion as it clarifies the human story in terms of development or change.<sup>2</sup>

What I am trying to say—and I am by no means the first, or even the fiftieth, to say it—is that the humanities, far from a set of subject matters, represent an outlook, a point of view, an angle of approach. So does science. And in speaking of the humanities I am not referring to humanistic scholarship; which is simply another name for the systematic, scientific application, for professional purposes, of technical procedures designed to advance our knowledge of the humanities. A linguist trying to determine the maximum number of stresses in spoken Thai, a philologist analyzing the uses of the adjectival suffix in Old Icelandic, a historian of art demonstrating a Titian original as against a forgery—such men are the practitioners of humanistic scholarship and their business is to add to the store of knowledge in their fields. But their professional activity has nothing whatever to do with the so-called "humane-ness" of their character and outlook. No one is *ipso facto* "humane" because he specializes in humanistic scholarship. And yet it is still possible to hold that without the humanities, as such, all men would be less humane.

If, then, it is so that the humanities are the common and necessary property of all men, as men, if it is so that they provide at once a bond that reminds us that we are all men and a mirror of our common experience that reminds us that each man's experience is uniquely his own, what shall we make of the cultural parochialism in our humanities curricula that restricts them, until only very recently, almost exclusively to the Western tradition? I shall not attempt to deal with the multiple historical reasons for this characteristic. Let me simply assume for a moment that it is agreed that the development of studies in non-Western civilizations in our colleges and universities would be a good thing. Here are some questions that then need to be asked, nearly all of them raised in an editorial last year written by Knox Hill, managing editor of *The Journal of General Education*.

If, as I think is the case, undergraduate programs in non-Western civilizations are designed to serve the ends not of professional studies but of general education, how shall we define those ends? If general education means the most complete survey of the world and its history as time permits, non-Western studies will be included so as to make that

<sup>2</sup> Jones, Howard Mumford, *op. cit.*, p. 78.

survey more complete. And if their inclusion does not mean more time given to general education, one sort of completeness will result in another sort of incompleteness. If, on the other hand, general education means some kind of sampling of knowledge and culture, it may be possible to select and to teach more thoroughly whatever is selected. Should greater emphasis be placed upon contemporary world problems or upon the broader outlines of world history? What, in short, should be taught about non-Western cultures, and what features of those cultures should be selected for study? Perhaps most fundamental of all, are there enough scholars in Asian and African studies to carry the load, especially if the courses are to be developed for considerable numbers of students? If there are not, surely we do not want to recruit squads of gleaners, those experts in the literature of translations, to do the job.

On the subject of public understanding of the humanities I am almost too case-hardened to speak. For two years now the American Council of Learned Societies has awarded 10 prizes annually of \$10,000 each to 10 scholars who have made incontrovertibly distinguished contributions to humanistic learning. They have gone to the likes of Douglas Bush, Arthur Lovejoy, Brand Blanshard, William Dinsmoor, Richmond Lattimore, Rene Wellek, Americo Castro, and others. Last year not a single newspaper in the country printed the story we released. This year the list of 10 was carried by that citadel of journalistic standards and dignity, the *New York Times* on page 62 of the inside Sunday news section, with all the scholarly background of each recipient excised, inside column, next to a furniture advertisement. No other paper, to my knowledge, carried the story.

There is nothing new in calling attention to the radical discontinuity between the learned life and American life at large. And public misunderstanding of, more accurately indifference to, the humanities is a part of that larger discontinuity. Only a fool can blink at the fact that America is traditionally not interested in the learned life, in the humanities; the public at large simply doesn't think of the humanities as something that contributes indispensably to the basic experience of the individual, as something, when all is said and done, that constitutes the difference between savagery and civilization.

Nor, I fear, do the secondary schools help very much. What used to be an accepted body of British and American authors, from which appropriate selections were read as an introduction to humane learning, has been replaced by something called "reading," or "language arts," or "communication." And what the English and American classics have given way to is too melancholy a list to catalogue, though there are plenty of *activities* to observe. To quote a third and final time from Mr. Jones:

No doubt something of freshness has come in. But something historical has gone out, and the result of this pedagogical innovation has been the denial of the possibility of literary tradition to the public schools. The only poem the American people have in com-

mon is the first stanza of "The Star-Spangled Banner," and the only prose is that of *The Reader's Digest*.<sup>3</sup>

In November of 1958 I was invited to attend a conference on secondary education sponsored by Columbia Teachers College at West Point, New York. It was attended by exactly 100 professors of education, high school teachers, principals, superintendents, and officers of national associations of high school teachers, principals, and superintendents. There were also present one professor of English and one professor of mathematics. At one of the final general sessions, during which each so-called "work group" reported on its conclusions, I listened to one of the reporters state that his group had agreed that the high school classroom ought ideally to be regarded as a "miniature social system." The image is tempting: we can now play society instead of playing school. He went on to say that the teacher must, as a consequence, attend to "biological, social, and other determinants of behavior." One wonders what is so profound about a biological determinant of behavior. The teacher must further be concerned with "peer clusters, subgroup dimensions, and psychological, emotive, idiosyncratic behavioral tendencies." The teacher must also learn, we were told, how to "capitalize on institutional role expectations in creating a favorable learning situation."

I assure you that my point here is not to poke fun at this barbarous gobbledegook, much as it deserves it. I am concerned with the conception it reflects of the classroom as a play-society. And does not such a conception run the risk of ignoring that greater responsibility of teachers to cultivate in their students a respect for history, an ineradicable wish to acquire an ever-accumulating knowledge of the cultural heritage of the race to which they belong, an unending—literally—desire to know where Man started, where he has been, what prices he has had to pay for certain choices he has made, as against others he could have made? If education concerns itself exclusively with what have been called the felt needs of the children, with preparation for democratic living, with adjustment to the society in which they find themselves, will it not forever prevent the children from growing up? The person who knows only his own age—and I intend the pun—remains forever a child. In all of this I resist what strikes me as a conception of education as a conditioning process. Totalitarian societies condition their young and call it education. I had thought we were different.

Not that I have any objection to commencing education with materials drawn from the youngsters' immediate environment, to starting, as we say, with the "contemporary," and leading them outward—back and forward—from there. No other kind of beginning makes sense, and it is pompous to puff it up as some kind of great pedagogical discovery. But if education remains only the preoccupation with what is contemporary, if the study of the contemporary does not lead to the study of greatness, then education has failed. It was Alfred North Whitehead who said,

<sup>3</sup> Jones, Howard Mumford, *op. cit.*, p. 23.

"Moral education is impossible apart from the habitual vision of greatness." If that habitual vision is not to be found in the humanities, I do not know where to look for it.

Turning, finally, from curriculum to extracurriculum, I cannot end this article without adding a word about guidance and counseling in the secondary schools. What I am recalling is something I have encountered in conversations with, and talks given by, junior high school and high school counselors; namely, an extravagant and altogether unrealistic faith these people seem to place in what they take to be the nearly infallible predictive value of vocational aptitude tests conducted around the 14- and 15-year age level. I cannot generalize beyond my experience, but in my experience it has uniformly been the case. The youngsters are led to believe that some declaration or commitment made at this point is of a serious, and may be of a permanent, nature; and that they ought therefore to take the disclosures of the aptitude tests pretty seriously indeed.

The consequences of this kind of tacit door-closing, I think, are two-fold, equally evil. First, the opportunities for a young person to discover the humanities for just what they are, and to grow up, so to speak, with and in them, are going to be pretty meager if he feels that at age 14 he's got to decide on a life's vocation. He is more likely than not going to assume—and who can blame him?—that education from this or from any other point onward is a matter strictly of developing professional *expertise*. Second, I worry even more about what it does to the young person's will and character—his essential humanity, if you will—if he grows up with the notion that, in all prudence, he would best not try for any kind of life's work in which the vocational aptitude test doesn't predict he will succeed.

I have said earlier that the humanities are the common and necessary property of all men, something—or some things—therefore that in one sense ought to be taken for granted. Yet in another sense we can't quite afford to take them or to let them be taken for granted. And doubtless this feeling is aggravated as we behold the present exalted state of the sciences. For the record, however, I want to say, as I have said elsewhere, that I can live happily with this dualism; in fact, I could not live happily without it. That is, I want to do something to see to it that the humanities are not taken for granted, provided I am reasonably certain in my mind that people do, in that first sense, take them for granted. The trouble is, I am not sure that they do—or that they ever did. As Douglas Bush has observed in his article "Education and the Humanities" appearing in *Daedalus*:

No one would ever speak of "the plight of the natural sciences," or of "the plight of the social sciences," but it is always proper to speak of "the plight of the humanities," and in the hushed, melancholy tone of one present at a perpetual deathbed. For something like 2500 years the humanities have been in more or less of a plight, not because they are themselves weak, but because their war is not merely with ignorance but with original sin.

**Future of the Humanities**

**Chester L. Neudling, RECORDER**

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THE HUMANITIES are not a set of subjects, but an attitude toward all subjects. All knowledge could be studied either humanistically or quantitatively. The *humanist* is not necessarily trained in the humanities.

General education programs have yet to prove that they can provide genuine humanistic education. Although the public is beginning to accept generally educated people for positions in business, most administrators and professional schools prefer specialized training.

The humanities should include study of non-Western cultures. Limitations on this objective are: (1) shortage of trained teachers, and (2) need for prior understanding of Western culture.

Secondary education will have great influence on the humanities in higher learning. Articulation between high schools and colleges in this area is growing but is still not ideal.

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NOTE: Chairman of Group 7, Section 1, was EARL E. EDGAR, Head, Department of General Studies, Kansas State College.

*Future of the Humanities*

**John Hicks, RECORDER**

*Professor of English and Director of English Studies, Stetson University*

THE HUMANE DISCIPLINES must appraise the seeming decline in public and governmental emphasis upon the humanities. The *humanist* often fails to share his values by such means as teaching, speaking, and nonprofessional writing. He often loses touch with current humane materials and with creative activity in the sciences, through which he could more readily approach the public and avoid aridity. Direct humane experience needs stress, not merely explication.

If professors of the humanities evidence in themselves the values of humane study, they may be heartened by increasing opportunities for meetings between humanists and public groups in conferences, institutes, and self-educative endeavors. On campus, general humanities courses may profitably unite the study of several subjects. Oriental materials need inclusion in humanities programs. As new material is included in humanities courses, richness of experience in materials studied may need to displace concern for quantity of materials.

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NOTE: Chairman of Group 7, Section 2, was HARRY T. MOORE, Professor of English, Southern Illinois University.



## *What Should Be the Shape of Things To Come in the Social Sciences Curriculum?*

**Walter H. C. Laves**

*Chairman, Department of Government, Indiana University*

**F**ORETELLING NATIONAL NEEDS far enough ahead to be able to plan educational programs to meet these needs is the challenge now facing America's institutions of higher education. This is a necessary though formidable task.

It seems to me that educators may be involved in an effort akin to that going on in newly developing countries today. Our task, like theirs, is to determine the adequacy of our system of higher education for attaining our goals, to discover changes that may be required and to find ways of making these changes. At one time a newly developing country ourselves, we have borrowed much from other countries, notably from Europe. Like the newly developing countries we must today take into account in our planning the larger world setting in which our own higher educational system functions. Like the newly developing countries we are examining our educational system in the midst of a world rapidly changing under the impact of political, scientific, technological and social revolutions of world-wide proportions.

The purpose of the undergraduate social science curriculum at the level of universities and colleges, I think, has four primary objectives:

1. To develop that understanding of the social process which today must be a necessary part of the equipment of educated citizens.
2. To increase the number of educated persons who will be qualified to serve as part of the inevitably growing officialdom of the modern state and notably in executive, administrative and legislative positions in domestic and international affairs.
3. To contribute to the education of teachers at all levels including those in social studies and in the many other subjects in which the teacher's understanding of the social, economic, and political process is essential.
4. To stimulate the development of scholars able to engage in significant research and analysis to advance man's knowledge of the political and social process.

If we are to speculate on whether the social science curriculum may be in need of modification for the years ahead, it is necessary to make some assumptions: first, as to the time period for which we are preparing;

and secondly, as to changes in world conditions that must be taken into account in planning the future of the social science curriculum.

My crystal ball is at best very cloudy and it provides little help in looking as far ahead as I feel I should. And at the same time changes are taking place so rapidly in the immediate present that it is hard to diagnose the adequacy of the social science curriculum even for the present. I have an uneasy feeling, therefore, that much of what I assume regarding the future is a projection merely of the known present for which we are even now not prepared and that "the shape of things to come" will be entirely different from what we try to foresee.

How far ahead should we sensibly try to look in examining the social science curriculum? Any given college class is being educated for meeting the problems of the succeeding 30 to 50 years. A graduate needs about 10 years in our society to become a significant influence in business, politics or the professions and this means that this year's freshmen will enter the influential group sometime after 1970. It is from 1970 to 2010 that they will be in the age range 30 to 70, possibly exercising in one way or another major influence in the body politic. They will be making decisions for what they consider the *present* and they will try to influence events in what they will call their *future* (the years after 2000). Therefore, we are faced with exploring the adequacy of the social science curriculum to educate a citizen who matures from 1978 forward.

What kind of a world is this likely to be from 1970 onward? It will undoubtedly be vastly different from today and still rapidly changing. I have tried with no success to foretell even the short future of the remaining twentieth century. As I review the changes in the relations of men and in their political, economic and social institutions, even since 1939, and then look at the speed with which scientific and technological change threatens to progress, I feel lucky in my confidence to be able to assume anything at all next year (but I wonder how wrong the events of the next 12 months will prove me to have been).<sup>1</sup>

Without any pretense at long-range prediction, then, let me list some continuing developments in the world about us for which the social sciences must help prepare the present college population.

*The Cold War.* Some kind of assumption has to be made about the prospects for resolving the cold war. If this is to be accomplished by resort to all-out war, there certainly will not be any social science curricula left and probably no students. I must assume for the purposes of this article that there will not be such a general war as to wipe out all of mankind. It will undoubtedly take long to bring about an accommodation that is considered tolerable and this is most likely to come about very gradually and through the resolution of specific crises rather

<sup>1</sup> I am especially interested in an analysis of some of the social problems that have developed as the result of scientific development as outlined in an address by Harlan Cleveland, Dean of the Maxwell School of Citizenship and Public Affairs, Syracuse University, "The Social Fall-Out of Science," (given at Alfred University, October 16, 1958).

than through any large plan, treaty or declaration. I assume a long period of high international tension, reflected in and intensified by the maintenance of huge military establishments.

During this era of uneasy peace, which may well last beyond the end of this century (therefore throughout the lives of today's college freshmen), we can assume increasingly intensive international competition in two major fields: (1) in trade and economic development, and (2) in broadly cultural, scientific and intellectual matters.

The first will mean keen economic competition between the principal contesting sides to promote their own prosperity and strength and to develop economic cooperation with the underdeveloped and largely uncommitted countries. The Soviet Union and Communist China have already thrown down explicit challenges to the West in both respects. Khrushchev has promised to bury us in the process!

The second will mean intensive competition between the same groups of nations in terms of skills, intellectual resources, cultural values and ideology. Again the focus will be both within and between the two major contesting groups and in relation to the uncommitted countries. The Russians have predicted that our children or grandchildren will all be socialists and/or communists.

Both kinds of competition will involve rapidly increasing contacts between the peoples of the countries involved and not just between governments. The cultural exchanges between the U.S. and the USSR, the visit of Mikoyan, the mounting demands for developing relations with Communist China and the growing trade between Western Europe and the USSR—all show the direction in which events are already rapidly moving. Americans show new respect for German technology by increasing orders for the Volkswagen. Will West Germans show similar reactions to the importation of the Russian Moskvich?

While military establishments stand at the ready, and intensive competition proceeds in economic, intellectual, and cultural matters and in the propagandizing of ideologies, there will unquestionably be continuing efforts both real and specious to find roads to disarmament.

*Integration of world-wide common interests.* For many decades there has been a rapidly growing integration of many of man's interests across national boundaries. Scientific discoveries affecting common human problems of health and nutrition or affecting man's search for knowledge about the atom; technological advances in industrial production, in communications and in warfare; the rapid increase in the world's population; the consequences of industrialization for social organization and human values; the many successful revolutions for national independence or for popular control of government—all of these have served to underline common human interests of a world-wide character and have served to draw men together in thinking and in cooperative action across the barriers of sovereign national states. In most of these areas institutions have been created, some nongovernmental (including, for example, the temporary International Geophysical Year and the host of professional

organizations in science, education, social welfare, *etc.*); others governmental in character (WHO, ILO, FAD, UNESCO, EURATOM) but all reflecting a rapid trend toward recognition of greater-than-national communities of human interests. In Europe the political trend has gone farthest as illustrated by supranational economic agencies designed to overcome the traditional and in many respects antiquated methods of national governments. A blending across national boundaries of interest groupings and the consequent blurring of loyalties point to fundamental and revolutionary changes ahead in the role of the nation states and of relations between citizens of different nations.

*Growing importance of government.* Continuation of tensions in the cold war means continuing increase in military power and the absoluteness with which governmental decisions determine human survival. It means also continuing and increasing power of government over all other aspects of national life directly or indirectly related to military strength. In the industrial and most advanced countries of the West, the power of government is likely to be further augmented to deal with critical national problems of education, agricultural and industrial productivity, trade, transportation and finance. In countries newly developing and beginning deliberately to industrialize, government provides the necessary collective will central to the process of economic and political development and to the independent survival of these states.

Faith in an old and attractive Jeffersonian concept of government, especially appropriate to a frontier civilization and a newly independent country, that "that government governs best that governs least" has perhaps blinded us to the increasing demands we have ourselves placed on government and the vast increase that has occurred in its scope and power. Only about half a century later Lincoln was moved to say, "The legitimate object of government is to do for a community of people whatever they need to have done, but cannot do at all, or cannot so well do, for themselves—in their separate and individual capacities." But he had not forgotten Jefferson for he added, "In all that the people can individually do as well for themselves government ought not to interfere." For the last hundred years we have broadened our conception of what needs to be done, and we have increasingly come to believe that much of this we cannot do except through the agency of government. Certainly there is no sign of a reversal in this trend.

*Growing inadequacy of traditional, political and governmental organization.* The cold war and the impact of scientific and technological discovery upon the relations of peoples at home and abroad reveal already great inadequacies in U. S. governmental structure and organization at all levels. Problems of urbanism, metropolitan areas, tax assessment, crime control, reapportionment, school districting, river basin development and natural resource conservation, federal-state relations, jurisdictional conflicts among federal governmental agencies; tensions between the Congress and the Executive, difficulties in finding and expressing a single national voice in consistent policies on international affairs—all

these and many others show the need for keeping under critical review all aspects of our governmental system.

*Growing participation of newly independent peoples in the world community.* A continuing concern in world affairs during many decades to come will be how to encourage effective participation in the world community of the large numbers of new states that have taken their place in the United Nations since the last war, and the many more still to come.

There are great differences among these states but all are made up of people who are newly experiencing independent domestic and international responsibilities. Few of these states have political systems that could survive major domestic or international crises. Most are engaged in a race against time to assure their people at least a minimum of tangible benefits, beyond independence itself, that were expected to come from a separate political existence. All the complicated problems of political organization, of government responsibility, of administration, of providing services in matters of health, education, economic development, of acting responsibly in world affairs and of maintaining order at home are involved. No other group of modern states has attained independence with greater hopes and expectations of its people and yet under such unstable domestic and international circumstances. Their independent survival and the role they play in relation to the development of a peaceful world community depend in large measure upon the policies and action of the United States.

*The population explosion.* Along with the scientific, technological and industrial revolutions, the impending population explosion takes its place as one of the major influences shaping the nature of the world in which we live. In another 50 years the total of the world's population will have doubled, we are told. Of this increase the largest percentage will be in the non-Western world in which major national and popular revolutions have taken place within our time and in which economies are least industrialized or otherwise ready to face fantastic problems of health, nutrition, poverty and illiteracy.

*The value struggle.* Intertwined with these and other major developments influencing the nature of the world will be the continuing struggle for survival and supremacy between the two principal political philosophies that have been closely related to the development of modern industrial society. Liberal democracy, with its traditional emphasis upon pluralism and individual initiative will continue to be vigorously challenged by communism with its emphasis upon monolithic social organization and collective political action. Vast areas of the world, mostly the new states, struggling with gigantic problems of human welfare, watch and are watched by the two camps espousing these ideologies. Each of the latter is determined to augment the number of peoples and nations committed to its ideology; each sees in the struggle over political philosophies and domestic policies major implications for its own survival as the balance of power may be shifted between them. Each will seek system-

atically to increase its own influence and to undermine the power of the other.

I have selected seven major developments shaping the nature of the world for which the social science curriculum should help educate students in our colleges and universities. What are the implications of these developments for the undergraduate social science curriculum? It would be presumptuous for me to do more than hazard the guess that most present college and university curricula do not adequately prepare for the kind of world changes described above, let alone the unpredictable ones. There are many efforts under way to reduce the gap between what is and what is needed.

However, I would like to pose some questions which those responsible for social science curricula might ask to determine the adequacy of their own present offerings in preparing citizens, teachers, scholars and future public servants to deal effectively with the seven (and other) developments mentioned above.

In terms of the undergraduate<sup>2</sup> social science curriculum I would ask these kinds of questions:

1. Has the total undergraduate curriculum been recently examined in terms of its adequacy to provide a liberal education for the *present context* of world affairs? Does it, for example, provide for understanding of the larger portion of the world outside Western civilization? Does the student, specifically, get an introduction to the USSR, China, Japan, South East Asia, South Asia, the Middle East, Africa and Latin America and to the problems in our relations with them? Is it designed to provide the broad background needed for intelligent citizenship in the growing world community represented in the United Nations? Does it contribute deliberately to increasing the suitability of Americans to engage in business, the arts and professions and in public service outside the American nation and culture?
2. Has the particular contribution of the social sciences to the total curriculum been determined? Is the curriculum so arranged that the basic contribution which the social sciences are to make to a liberal education is in fact a part of *every* student's program and not merely of that of a *major* or the chance enrollee?
3. Is the social science curriculum in fact interdisciplinary and comprehensive or is it limited by chance availability of faculty or student preference to one or a few of the social sciences?
4. Is the social science curriculum related to the broader humanities program in a manner to show inter-relationships and the *wholeness* of society?
5. Does the undergraduate social science curriculum deliberately seek to encourage prior preparation at the secondary school level in some broad essentials like history, languages, geography, government? In

<sup>2</sup> I deliberately do not touch upon the graduate curriculum because it involves an additional set of assumptions related to professional careers.

- particular at state universities is the total public educational experience in high school and college seen as a related whole?
6. Does the social science curriculum contribute to an understanding of society in its world-wide or universal context? Is it designed to provide understanding of the dynamics of other societies or only of our own?
  7. Does the social science curriculum provide the means for understanding the character of the governmental process, its roots, its social setting, its inevitable complexity and the manner in which decisions are made as expressions of the public will?
  8. Does the social science curriculum focus adequately upon the role of the individual and his social responsibilities as citizen, teacher, scholar and potential public servant? Does it encourage participation in the public service and in the democratic processes?
  9. Does the social science curriculum help in understanding the historical evolution of the modern nation-state, its limitations as well as its utility and the continuing need for adjustment of public institution to the impact of science and technology upon our society?
  10. Does the social science curriculum introduce the students to an understanding of the rapidly changing world-wide economic and social inter-relationships of modern men and their implication for domestic and foreign policy? Specifically, are they introduced to the problems of international trade policy and of newly developing countries and their implications for international peace and American foreign policy?
  11. Is the student encouraged to detach himself from national symbols and his own society in order to increase the objectivity of his studies of man's world relationships?
  12. Does the student have opportunity for rigorous study of the principal value systems and ideologies of the world, including his own? Does he learn to understand the competitive and conflicting and also the similar aspects among these systems?
  13. Recognizing the impossibility of predicting exactly the nature of developments very far ahead, does the social science curriculum adequately emphasize the development of those habits of thought about society that will help the future citizen deal intelligently with problems of wholly new dimensions and character?

These, it seems to me are all pertinent questions to ask in determining the adequacy of the social science curriculum to meet the rapidly changing world conditions which we can clearly perceive. While we seek thus to catch up with the present, one may hope that social science research will have applied itself at a much more productive rate to understanding the nature of society so that we can predict the future of social change with more accuracy, and thus be better equipped to prepare coming generations through education for what lies ahead.

The task of catching up to the present and of getting ready for the future through more effective development of the social sciences in

higher education is a formidable one. I am not pessimistic, however, about the prospects since much already is being done in the form of concentrated efforts both nationally and locally. Many individual colleges and universities, as well as professional organizations like the American Council of Learned Societies, National Education Association, American Council on Education, and American Economic Association, are giving attention to the problem both in their meetings and in their publications. Although I am not pessimistic, I want to underline the urgency of the task and the necessity of a major national effort.

### *Future of the Social Sciences*

**E. L. Noel, Jr., RECORDER**

*Chairman, Department of Social Sciences, St. Petersburg Junior College*

THE SUBJECT challenges us to foresee the future far enough in advance to be able to plan educational programs to meet these needs.

The inner drive of our society, the strength of our educational institutions, and the determination of our educational leadership, is such that we will probably be able to make the revisions in our curriculum necessary to prepare students for life today and tomorrow.

Determining the adequacy of our system for attaining our goals, discovering changes that may be required, and finding ways of making these changes are some of the problems facing the social sciences. Therefore, attempts must be made to appraise the world as it is and as it probably may become.

Broad-gauge faculty members are needed to ensure the adequate preparation of students, to give students the techniques for systematically solving social problems as they arise, and to inspire graduates to undertake the solution of these problems.



## *What Should Be the Shape of Things To Come in the Natural Sciences Curriculum?*

**A. B. Arons**

*Professor of Physics, Amherst College*

THE PAST TWO YEARS have seen a flurry of educational conferences on the part of physicists, chemists, and biologists. Committees have met under the auspices of the National Science Foundation and the National Academy of Sciences and have made pronouncements and recommendations concerning college curricula in the natural sciences. According to the apparently inescapable fate of such documents, the reports have been filed in the drawer of oblivion by just those who would stand to profit most from heeding the advice which was being given.

I do not propose to recapitulate the contents of these reports. (I earnestly recommend them to those who are not familiar with them. They make interesting, and occasionally stimulating, reading; for they have been prepared and worked over by forward looking men who are deeply and honestly concerned, at first hand, with the large problems of curricula in the natural sciences.) I would like to list under my own biased stamp of approval certain of the general recommendations (as I interpret them), together with others which are either my own, or which received only qualified approval, or appear just as hints between the lines.

The first, soundest, and virtually unanimously repeated recommendation is that natural science curricula must give up the debilitating fetish of subject matter coverage. It is no longer educationally sound to try to cover the entire spectrum. We must make judicious selection of subject matter. The selection must be neither haphazard nor eclectic. It must be addressed to the clearly articulated goal of allowing a logical, coherent, and clearly motivated development of the conceptual structure of the discipline. It must reveal the evidence on which conceptual schemes are based, the connections between such schemes, and the questions which are not answered, the results which are not achieved. It must generate an adequate vocabulary and leave the student with the capacity to traverse himself, when the need is encountered, those compartments of subject matter which can no longer be included in the formal course.

Much lip service is being rendered in agreement with this principle,

but I submit that its effective implementation is relatively rare, and that much remains to be achieved.

Another virtually unanimous recommendation is that our natural science courses should include philosophical and historical perspectives. This again is easily said and rarely done. Too many people think that philosophy consists of beating one's breast about the fix into which atomic physics precipitated mankind, to ramble through murky clichés about the social responsibility of the scientist, or to assert to students, without background in the concepts that relativity and quantum mechanics upset drastically our subsumptions about space, time, and cause and effect.

I by no means intend to mock these questions or deny their significance. What I am doing is questioning the possibility of discussing them *meaningfully* before other, simpler philosophical ideas have been encountered and some depth of penetration attained into the logic and structure of a science. In an introductory course it is preferable to show the students that in describing changes of velocity we have a choice of two alternatives: change of velocity per unit time or change of velocity per unit displacement. Which one we elect to christen *acceleration* is not decreed by fate but is motivated by considerations of elegance and simplicity. *Acceleration* quickly becomes a construct instead of a *thing*, and the fact that Galileo chose the better definition for the wrong reasons becomes an interesting historical footnote. One can have the students work through some of J. J. Thomson's data for cathode beams from a few different kinds of metal electrodes to see what is actually meant when we say that we can explain our measurements by describing the beams as consisting of streams of particles all having the same charge to mass ratio. The student then has an idea of the operational context in which the term *electron* arises. He senses the tenuousness of the initial idea, the need for more detailed specification, the need for evidence from independent sources. Above all, he no longer visualizes an electron as a kind of billiard ball first spotted by accident in an obscure corner of a laboratory by a scientist who smeared his hand on some of its electrical charge.

In a humble, but I believe realistic, way this kind of approach seems to me to have a great deal to do with philosophy and with the very important subheadings of logic and epistemology. I hope it is apparent that similar things can be said about the historical element. Meaningful discussion of the bigger questions might come after these more modest preliminaries.

We are greatly in need of more texts and working materials that include historical and philosophical views, particularly in introductory courses. Mathematical science has a number of things available (Dantzig, Kline, etc.) if it would only condescend to use them as teaching tools. In physics we fortunately have Holton's *tour-de-force* which is receiving gratifyingly wide use. In chemistry I have high hopes for a forthcoming book by Leonard Nash, and I respect the Harvard *Case Histories*. In

biology I shamefully confess an abysmal ignorance, but I know of nothing comparable to the books mentioned above.

Gingerly mentioned here and there is the desirability of having only one introductory course in each discipline for all students. One can easily have heated arguments on this matter, but my personal conviction is that this is entirely feasible and highly desirable—particularly if one really implements the two recommendations I have discussed above. The intrinsic feasibility is demonstrated by the program which has been in effect at my own college for 12 years. The real difficulty lies in getting a faculty to accept the premise and agree to do the job in the first place. Implementation, although not trivial, is an easier second step.

Another gingerly voiced suggestion—one which has not received enough support to command an official committee endorsement—is that students should get at least enough of the rudiments of calculus to do physics honestly instead of by evasion; that chemistry should be preceded by honest physics; and that biology, which in this generation has risen rapidly from taxonomy and natural history to become a truly analytical predictive science, should be preceded by both honest physics and honest chemistry. I am sure that this suggestion will horrify many people into soothing, temporarily convincing rationalizations of impracticability. I am profoundly convinced, however, that this is a part of what should *definitely* be the shape of things to come in our natural science curricula and that the sooner we head courageously in this direction the better will be our chance of approaching the various educational goals that we enunciate so glibly.

For those who fear that future biologists will be lost to physics in such a sequence, I cite our experience at Amherst. The biology department has a large group of excellent majors and is very happy that they have all had calculus, physics, and chemistry first. An increasing number of fine students are entering the exciting new field of biophysics.

One of the most effective and efficient steps we could take in our curricula at large would be to decrease drastically the horizontal proliferation of specialized courses and to strengthen important vertical sequences which develop the student's depth of understanding of the subject and ability to use his analytical and conceptual tools by moving him through a sequence of courses each of which is clearly, logically tied to the ones which came before.

If you discern in this a calculated, insidious attack on specialized vested interests and academic empires, you will have to make the best of it, because that is exactly what I intend it to be. The fantastic proliferation of courses and fragmentation of disciplines which is so prevalent in our colleges and universities is not only a major impediment to improvement and strengthening of curricula, it is also one of the major obstacles to the effective handling of the swarm of students which will arrive during the next decade of teacher shortage. As far as I am concerned, the most effective ways toward "better utilization of teaching resources" lie not so much in technical tricks and gimmicks but in

cutting down the insane number of courses to which we are committed, divesting ourselves of our *prima donna* impulse to "have a course our very own," and to cooperate with other men of good will in teaching the basic vertical program, even if it does not make room for our own little specialty. A move in this direction requires statesmanship and moral courage among leaders in both faculty and administration, but it would attack a serious problem at the core instead of ineffectively chipping at the periphery.

Finally I would like to call attention to a sequence of developments which is bound to affect the shape of things to come, and the problem that confronts us is one of adjusting to external forces rather than molding shapes ourselves. I refer to the impact which will stem from secondary school programs such as the Illinois Mathematics and the new PSSC physics.

The University of Illinois Committee on School Mathematics has for a number of years been propagating a secondary school mathematics course which develops elementary mathematics from a modern and highly sophisticated point of view. The use of the program is gradually spreading. Students emanating from it come to college with a point of view toward the concept of number, the axiomatic nature of mathematics, the origin and meaning of mathematical manipulation and notation which is not only a very different order from that of fellow students subjected to the desiccated conventional program, but is frequently more sophisticated than that of the antediluvian material and point of view they encounter in many introductory college courses.

A similar situation is developing with respect to the very new secondary school physics program being promulgated by the Physical Science Study Committee in Cambridge. Three hundred schools are using the program this year. Many more will be involved next year. This summer the country will be blanketed with institutes preparing secondary school teachers to handle the PSSC material.

Although it is too soon to render judgment on the ultimate success of this program and the number and caliber of both teachers and students who can handle it successfully, there are certain facts that must be faced. I have been reading the PSSC material carefully. It is good, correct, logical physics. It has applied a relentless meat axe, chopped off dead unnecessary subject matter, and is concentrating on a careful, correct development of the main stream of physical concepts and ideas. It confronts the student with problems, not just trivial examples. It insists on continual and repeated use of the tools of elementary algebra and geometry. The laboratory work is extremely ingenious, simple, and down to earth. It elicits participation and not cookbook manipulation from the student. Both the logical strength of the class work and the vividness of the laboratory are superior to those of at least 90 per cent of present introductory college courses.

I do not know how many students will emerge from these programs with a good grasp and understanding of the concepts, but it will un-

doubtedly be a substantial number. I am deeply concerned about the fact that many such students will enter college courses which are inferior in intellectual level to those which the student has just had in secondary school. One need not elaborate on how punishing and dispiriting this experience is likely to be. I suggest that it is extremely important for us to spread an awareness of the immediate urgency of this particular problem. We must provide mechanisms in our respective institutions for placing successful students of the new programs at appropriately challenging levels and ensure against their being punished for unusual curiosity, skepticism, or unorthodox points of view toward the subject matter.

### **Future of the Natural Sciences**

**Nelson Marshall**

*Dean, College of Liberal Arts, Alfred University*

MODERN SCIENTIFIC KNOWLEDGE is too extensive to be covered in elementary courses, thus material must be chosen that portrays the main stream of thought and reveals the philosophical and historical significance of the science, as well as its basic nature and structure. Once the material is chosen it should be treated with depth, using some of the more demanding tools of our thought processes. For example, calculus might be developed and used in the teaching of elementary physics.

A science course should not permit students to lean on operational definitions but should stress understanding. The emphasis on understanding can be extended to laboratory projects, simple in nature, yet profound in their demands for student interpretation.

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NOTE: Chairman of Group 9 was LEONARD MANN, S.M., Dean of Science, University of Dayton; resource person was HARRY C. KELLY, Assistant Director for Scientific Personnel and Education, National Science Foundation, Washington, D.C.



## What Should Be the Shape of Things To Come in the Mathematics Curriculum?\*

Leon W. Cohen

Head, Department of Mathematics, University of Maryland

**A** NEW SHAPE FOR OUR mathematics curriculum began to form about 1950. The first half of the century saw the consolidation of an epoch of mathematical research at a fundamental level in mathematical logic, set theory, the theory of linear operators, topology, probability and algebra. This consolidation was paralleled, with a small time lag, by a sharp rise in the scientific level of our technology. The emergence of atomic energy, high-speed transport and communication, electronic computing machines and other contrivances indicates that the productive process has moved a step in what may be called the hierarchy of production types: from the stage in which men work with machine tools to the stage in which men work with machines that work with machine tools. The mixture of mind and muscle in the labor force shifted heavily in the direction of mind. The time had come for a book entitled *The Human Use of Human Beings*, and Norbert Wiener wrote it in 1950.

This state of affairs has serious implications for mathematics in the undergraduate curriculum. To the extent that undergraduate mathematics is vocational, it must relate to the heightened emphasis on pure science in the engineering curriculum, to the use of mathematical statistics, numerical analysis, and high-speed computation in attacking management problems of industry and government, and to the use of mathematical models in the life sciences. In those fields the user of mathematics is effective to the extent that he can formulate his problems in the language and concepts of mathematics. Manipulative facility is, of course, necessary but such skill alone is far from adequate. The reason is simply that a problem must be formulated before it can be solved. To vary an old American slogan: computation without formulation is stupidity.

To the extent that undergraduate mathematics may influence the philosophical orientation of the student, the problem is not greatly different. The character of scientific theory, the methods of decision-making in industry and government, and the very structure of logic and

\* The actual title of this paper was "The Emerging Shape of the Coming Mathematical Curriculum."

language are being modified by mathematical advances of the last 50 years. A liberal education is, I should suppose, a basis on which man estimates the condition of his life and judges its values. The ideas and methods of mathematics have decisively affected that condition and those values. It is no exaggeration to claim that the world of public affairs and private values had not digested the effects of the Galilean Newtonian ideas of the sixteenth-seventeenth centuries before those ideas were profoundly transformed by the logico-mathematical contributions of the nineteenth-twentieth centuries. If our society is to come to terms with the effects of this knowledge, our students must have access to the knowledge. Access to this knowledge requires understanding of the language in which it is stated. That language is mathematics. A society which is to survive will not be allowed anything like another 300 years to penetrate the meaning of the scientific ideas of the last 50.

In 1952 the Mathematical Association of America recognized that this historical process demanded a re-examination of the undergraduate program in mathematics. In January, 1953, its president appointed the Committee on the Undergraduate Program with instructions "to study the problem of making available to our society the values of modern mathematics."

It was clear to the Association that it was dealing with cultural and scientific values rather than with a narrow effort of curriculum reform. The correctness of this broad view obtained support from a direction not traditionally close to mathematics; namely, the social sciences. The Social Science Research Council had created a committee on the Mathematical Training of Social Scientists. The SSRC committee was guided by the recognition that "recent developments in various fields of social science have created demands for mathematical training that are not satisfied by traditional curricula in mathematics."

It is worth noting the recommendations made in 1955 by the SSRC Committee for the content of two years of mathematical training for students of social science.

<b>First Year</b>	<b>Second Year</b>		
<i>80 lecture hours</i>		<i>80 lecture hours</i>	
Logic and set theory	10 hours	Continuation of calculus	30 hours
Relations, including order relations	10 hours	Probability	30 hours
Axiom systems and mathematical models	10 hours	Matrix theory	20 hours
Introduction to rational and transcendental functions	15 hours		
Introduction to calculus	35 hours		

This is interesting partly because it reflects the relevance of modern mathematical ideas to the social sciences. It is more interesting because

those topics are also of interest to the present day requirements of the biological sciences, the physical sciences, and the design and proper use of computing machines. This recommendation points up the close relation between modern mathematics and what is needed in elementary mathematical instruction.

CUP, as the Committee on the Undergraduate Program is called, conceived its task to be that of providing a bridge between the recent mathematical literature and the college curriculum. Adopting the principle that example is more effective than exhortation, CUP organized writing groups to prepare source materials from which textbooks and courses could be constructed. It developed and tested a volume called *Universal Mathematics* as a basic freshman course in analytic geometry and calculus to replace the wasteful multiplicity of special fragmentary courses offered in many colleges. It developed a volume called *Elementary Mathematics of Sets—with Applications* in response to the role of set theory as a unifying element in mathematics and to the growing need for probability methods in the physical as well as the social and biological sciences. The influence of linear algebra, that is vectors, matrices and operator theory in all fields, particularly in probability and its applications, was met by two volumes on *Modern Mathematical Methods and Models*. The materials contained in those four volumes were offered as examples of a standard for present day freshman and sophomore mathematics. As an example of an honors course, the Committee published the material in the Princeton Freshman Honors Course in Mathematics. That this program was effective in influencing instruction is indicated by the subsequent commercial publication of textbooks with comparable material and the appearance of related courses in college catalogues. The work of CUP was supported by grants from the University of Kansas, the SSRC, and the Ford Foundation. About \$125,000 has been spent and a small balance remains with which two more volumes, one on geometry, will be published.

It was evident to CUP from the beginning that its task necessitated good working arrangements with many allied interests. The chairman of the Commission on Mathematics, established by The College Entrance Examination Board, was a member of CUP. The Committee was extended to include the chairman of the Joint Committee on Teacher Education, an organ of the National Council of Teachers of Mathematics. Liaison was established with the SSRC Committee whose work has been mentioned above. A committee representing the American Society for Engineering Education and the Association studied the impact of modern mathematics upon engineering. Its report appeared in the *Journal of Engineering Education* in 1955.

This activity, which was centered on the first two undergraduate years, sharpened the question of school mathematics. The shift to the content of the new undergraduate courses without a corresponding shift in the school curriculum implies a fatal discontinuity. The term "fatal" is not too strong. The almost seamless structure of mathematics has the con-

sequence that a lack of concepts and skills at an elementary level is an almost insurmountable obstacle to further learning. The recent demand for an increased supply of increasingly competent mathematical manpower requires the removal of the discontinuity and focuses attention on the school mathematics teacher and the school mathematics curriculum. The National Science Foundation is supporting a large program for the retraining of high school teachers of science and mathematics. It should be recalled that this program began in 1953 with a Summer Institute for college teachers of mathematics. The principal aim of the program is the retaining of teachers already embarked on their professional careers. Valuable as the program is, it is essentially remedial. Additional efforts are required if the discontinuity is to be smoothed out. As examples of the new efforts we may consider:

1. The construction of new school courses articulated with the undergraduate program.
2. The writing of textbooks corresponding to the new courses.
3. The construction of a teacher training program relevant to the new courses and textbooks.
4. The stimulation of pupil interest in mathematical ideas.

Several such efforts are now under way. The Commission on Mathematics, as an organ of the College Entrance Examination Board, is responsible for two of them. The first is the Advanced Placement Program by which high schools can offer courses leading to college credit for courses in analytic geometry and calculus. The second is a recommended program of high school instruction in grades 9 through 12 designed to provide a sound basis for the undergraduate program. A report on this activity is about to be published by the CEEB. It will emphasize: (1) strong preparation in both concepts and skills as a basis for a college freshman course in analytic geometry and calculus, (2) understanding of the deductive character of algebra as well as geometry, (3) appreciation of mathematical structure—the properties of groups, rings and fields as exhibited by the real and complex number systems, (4) the introduction of coordinates in geometry and the properties of circular functions and vectors in trigonometry, and (5) a choice of linear algebra or probability and statistical inference in the 12th grade.

In line with the CUP practice of providing sample teaching materials, the Commission on Mathematics sponsored the preparation of a text called *Introductory Probability and Statistical Inference for Secondary Schools* which was published by the CEEB in 1957.

Since 1952 a Committee on School Mathematics at the University of Illinois has been working to develop a four-year program of high school mathematics whose underlying purpose is to develop understanding as well as manipulative skills. In line with the generally felt need to raise our cultural level, the program is aimed at the college-capable pupil rather than the genius. At present 55 schools in 20 states and Hawaii are using the materials of this program.

Last year two more curriculum construction programs got under way.

The first broke ground at the junior high school level. At the University of Maryland a three-year effort is attacking the materials for grades seven and eight. During the summer of 1958 a seventh grade course based on the algebraic structure of the real number system was developed and this year it is being tried in about 25 schools in the Washington area and some others throughout the country. A seminar involving high school teachers and members of the Maryland faculty was set up and will continue to meet this year to revise the seventh grade materials and to work out the eighth grade course. This work is supported by the Carnegie Corporation. Next summer an institute for junior high school teachers, supported by the National Science Foundation, will review the materials, the results of the experimental instruction, and begin on the problem of preparing teachers to deal with the proposed courses. It should be noted that the advisory committee for this study involves the mathematics, education, science, engineering and psychology groups at the University of Maryland, the U.S. Office of Education, the Maryland State Department of Education, and the school systems of the District of Columbia, two counties in Maryland, and one county in Virginia.

The second program is that of the School Mathematics Study Group. The origin of this group reflects the integrated character of mathematics from its beginnings in elementary instruction to its consequences in basic research and applications. In 1957 the mathematical community became concerned with the question of establishing new institutes for post-doctoral research to supplement the facilities at the Institute for Advanced Study in Princeton and the Institute for Mathematical Sciences in New York. The last act of "A Survey of Research Potential and Training in the Mathematical Sciences," undertaken at the University of Chicago in 1955 with NSF support, was to hold a conference in Chicago in 1957 to examine the problem of such institutes. It was at that conference that the decision was taken, with the support of the National Science Foundation, to set up the School Mathematics Study Group with headquarters at Yale University. It is national in scope and has already engaged more than 100 individuals in its activities.

The group aims to improve the amount and quality of mathematical training in the schools. It has involved representatives from all segments of the mathematical profession. It recognizes that it will not be possible to increase the fraction of classroom time allotted to the teaching of mathematics. Its immediate objective is to provide a curriculum which will enable a student entering college to study with comprehension a standard course in analytic geometry and calculus. Up to the moment the group has outlined courses for grades nine through 12. It recognizes the importance of considering mathematics in the elementary school and of the psychological factors which motivate interest and accomplishment in school mathematics. Next summer writing groups will prepare first drafts of experimental texts. Contact with the Maryland project for seventh and eighth grade courses is being maintained. A series of monographs, aimed at the better high school students, is projected and several

manuscripts are in preparation. A panel will study the use of films and television as teaching aids and as teacher training aids. In all these undertakings, advice and participation is being obtained from the leading mathematicians of the country.

Something must be said about the administrative problems at the several levels of government which are closely related to activating the efforts mentioned above in the school systems. It is most heartening to notice specific evidence of cooperation. In Minnesota there has been established the Minnesota National Laboratory for the Improvement of Secondary School Mathematics. It is a part of the division of instruction in the State Department of Education. The director of this laboratory is a first-rate research mathematician on the faculty of the University of Minnesota. The director has an advisory committee consisting of a statistician, a psychologist, mathematicians from the University and liberal arts colleges in the state, a professor of education and representatives of school administration, teacher organizations and industry. This laboratory is taking a fresh look at evaluation problems which occur in mathematical education and is working closely with the School Mathematics Study Group, the Illinois, and the Maryland groups. The personnel involved in this effort may correct some of the existing testing procedures which were set up by teams consisting of what one critic described as first-rate psychologists and tenth-rate mathematicians.

The participation of local, state, and federal educational officials in the advisory panel for the Maryland project mentioned earlier has been most helpful and sets an encouraging precedent for future efforts elsewhere. A notable event in this area was the participation of 20 mathematicians in the 1958 Conference of the National Commission on Teacher Education and Professional Standards (TEPS). While TEPS is an organ of the National Education Association and not an agency of state government, it is influential in state decisions affecting teacher certification. The direct contact between the attending mathematicians and professional school people will be most helpful in the future.

We come now to technical devices: films, television, and other aids. There are two points of view in the use of film and television. One is to supply good exposition for courses with large enrollments where the conventional method of small sections implies the use of young, inexperienced, and inadequately prepared instructors. The other is that of extending the influence of leading mathematicians to the best students of any college or school equipped with a moving picture projector. This second objective is the aim of programs undertaken at the college level by the Mathematical Association of America and at the school level by the Commission on Mathematics.

At Maryland we tried a large lecture section of 100 in the hands of one of our senior professors. He had three assistants to handle small sections as problem laboratories. The result, as indicated by a uniform examination for all 654 students in this freshman course, appears to be that the lecture-laboratory method in mathematics leads to performance by

the students at least as good as and possibly slightly better than the conventional small section method of instruction. This approach merits careful study in view of the prospect of rapidly increasing enrollments in a period when competent instructors are hard to come by.

The whole domain of technical aids is just opening up for investigation. If approached wisely, and not with the unlikely aim of replacing the live teacher, much of value may be learned.

What has been said above is by no means a complete account of the forces which are shaping the future of mathematical instruction. No names have been mentioned because a choice would have had to be made and any choice among the people involved would exclude important contributors.

There remains the desirability of making a few observations on the task ahead. What is central is that a beginning has been made at focusing the efforts of mathematicians in the schools, in the undergraduate colleges and in the universities on raising the level of our mathematical culture. That this rise must be accomplished as a matter of national pride and survival is no longer open to serious question. The immediate necessity is to nurture enthusiasm for the task and to provide the means of communication necessary for its achievement. Manpower resources are pitifully inadequate in quantity. This lack is offset by the dedication of the few who have been lending a hand to the job. In this connection let me return to the Committee on the Undergraduate Program. It has been reorganized by the Mathematical Association of America in the light of such developments as have just been described. The Committee will continue under its general instruction to make the values of mathematics available to the nation, and anticipates acting in four principal directions which may be described as follows:

1. The improvement of undergraduate preparation for graduate study in mathematics.
2. The development of special courses of study for students intending to teach in the elementary and high schools.
3. The development of special courses of study for students particularly interested in the physical and engineering sciences.
4. The development of special courses of study for students particularly interested in the biological and social sciences.

Mathematicians as teachers in undergraduate colleges occupy a central position in our culture. The human output of our schools as it relates to the mathematics of the future and its applications pass through their hands. They play a fundamental role in the preparation of our future teachers. The physical and life sciences depend upon them to impart to their students both technical skill and philosophical point of view. The advance of mathematical research depends on the quality and quantity of those they send to the graduate schools. The Mathematical Asso-

ciation of America in its Committee on the Undergraduate Program has a means of collecting the advice, stimulating the activity and of providing the communications system required for this vitally necessary task and I look to it to play an effective role in its accomplishment.

### **Future of Mathematics**

**Gerald B. Huff, RECORDER**

*Head, Department of Mathematics, University of Georgia*

MATHEMATICS AS A LANGUAGE for the description and control of man's environment is a concept that should be given an appropriate philosophical setting in American colleges. The Committee on the Undergraduate Program of the Mathematical Association of America is planning such courses and sponsoring the preparation of suitable textbooks.

The shortage of college teachers capable of teaching these courses is a crucial one. Some institutions are experimenting with large class sections taught by master teachers. Other institutions are attempting to solve the teacher shortage by the use of films and television programs.

Although service courses must be offered, the choice of content must rest on the mathematical quality of the material. It is not necessary for courses in mathematics to be studied in a definite sequence. Experience has shown, for example, that linear algebra can precede the study of calculus.

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NOTE: Chairman of Group 10 was JOHN C. MOORE, Associate Professor of Mathematics, Princeton University.



## CHAPTER 11

### *What Are the Changing Characteristics of the Undergraduate and What Do These Changes Mean for Programs of General Education?*

**John Bushnell**

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for the Advancement of Education, Vassar College*

**W**E CANNOT SAY, given the sum of our research to date, that we fully comprehend the undergraduate, although our knowledge and understanding will continue to expand rapidly in the immediate years to come. The data currently available bear largely upon such things as academic performance, opinions, attitudes, and changes in value orientation, leaving us with relatively little information on personality, on social organization at the student level, and on the culture of the college. It is fortunate, however, that much of the past research can be related to the area of values, for values have the unique property of cutting across several levels of inquiry and, hence, can provide an overview of the college student even though this approach leaves much to be desired.

As for the factor of change, we simply do not have a sufficient number of empirical studies prior to the fifties to enable us to construct a definitive baseline for comparing today's undergraduate with yesterday's. Nevertheless, we recognize that variation, modification and innovation are inherent in human activity; that colleges and universities, being humanly contrived, do not remain static; and that the undergraduates of today are not simply replications of former generations of students even though this latter observation is not, from a scientific viewpoint, wholly demonstrable at the moment.

Many of the researches carried out here and there over the country in the last three decades have been summarized in Philip Jacob's book on *Changing Values in College*<sup>1</sup> and I start with this important milestone in the recent history of higher education. I assume that most people are familiar with Jacob's work and I will not dwell on the contents. The major conclusions can be briefly put. The student of today is both self-confident and self-satisfied. He is focused primarily upon himself with *self*, in his thinking, so structured as to include wife, children, home, and immediate ties to the community. Politics, the affairs of government, or world issues are not particularly his concern although

<sup>1</sup> Jacob, Philip E. *Changing Values in College*. New York: Harper & Brothers, 1957.

he will submit to the draft or vote, at least in national elections. Ideally, interpersonal relationships are characterized by harmony with a liberal dash of tolerance for those who deviate for whatever reasons from the established norm. This norm includes traditional moral virtues, conventional religious faith, a frank and open aspiration to enjoy the material goods of life. A college education is highly valued as an end in itself.

Part of Jacob's evidence came from the study by Gillespie and Allport<sup>2</sup> which highlighted this characterization of the American undergraduate by placing him in juxtaposition with his foreign counterpart. Gillespie and Allport collected autobiographies from students in 10 countries to find that while young college people abroad emphasized a desire to contribute to the future growth of their nation through individual achievement in the case of underdeveloped countries or accented the cultivation of personal character particularly in the European universities, American students were prominent in their preference for a style of life marked by *privatism*—an avoidance of the larger political and social issues, a determination to cultivate, figuratively and literally, one's own garden.

This portrait of the student might be more palatable if it were possible to demonstrate in the same breath that higher education was exerting a countervailing influence to this self-centered and constricted life style. Jacob, whose specific assignment was to study the impact of social science courses on value configurations held by undergraduates, was unable to credit either quality of teaching, method of instruction, character of the curriculum, or basic courses in social science with the power to make an appreciable dent in existing student values. Instead he reported:

The main over-all effect of higher education upon student values is to bring about general acceptance of a body of standards and attitudes characteristic of college-bred men and women in the American community....

The impact of the college experience is to *socialize* the individual, to refine, polish or "shape up" his values so that he can fit comfortably into the ranks of American college alumni.<sup>3</sup>

Is it possible at this time to evaluate the Jacob report? Are college students really as conformity-minded and limited in their outlook as this research summary would indicate? It must be said that thus far Jacob's delineation of the college student has not been seriously challenged. In fact, most of a rather extensive literature on what is sometimes called the "age of conformity" in the United States serves to reinforce this picture. For example, Riesman has given us the "other directed" personality, the individual who places a premium upon the correct behavioral response geared to the expectations of the group. This concept allies itself, of course, with findings taken directly from the collegiate segment of our society. Riesman has also remarked upon the

<sup>2</sup> Gillespie, J. M. and Allport, G. W. *Youth's Outlook on the Future*. New York: Random House, 1955.

<sup>3</sup> Jacob, Philip E., *op. cit.*, p. 4.

shifting enrollments in courses which reflect student preoccupation with human relations and one's private life: the center of interest has retreated from the outer world as represented by the fields of economics, history, and political science to the more accessible and seemingly manageable areas of personal and social life encompassed by the social sciences and by religion.<sup>4</sup>

Two very recent publications indicate that some modification of the Jacob summation is in the offing. Smith,<sup>5</sup> analyzing from the philosopher's vantage point the studies comprising the Jacob report, points out that the hopes and expectations held by professors and research people with respect to college students have been determined largely by a utilitarian philosophy which accents goals or ends in the external world and the means for realizing them while underplaying or ignoring those values of a religious, moral or personal nature more directly associated with the inner life of the individual. In this respect it is most interesting to note that the study just completed by Edward Eddy and his associates<sup>6</sup> revealed a marked amount of unrest, questioning, and soul-searching among students in a variegated sample of 20 colleges and universities. It may well be that contemporary students have lost neither the desire nor the ability to ask questions and seek answers, but that we as teachers have failed to perceive how far the student focus of interest has moved away from our own center of gravity. If social science courses leave the college-age person relatively untouched, this may mean that we, rather than the students, are the real casualties.

The long-range study of students which we are pursuing at Vassar College under the auspices of the Mellon Foundation has brought to light a considerable wealth of data in support of the general trends which Jacob noted, although I should add that our findings do not wholly support his conclusions. I think that perhaps for present purposes one of the most indicative areas I can report upon involves the concept of self in relation to the future years. It is characteristic that the Vassar student, almost without exception, believes that there is only one avenue—marriage and children—which can lead to the full realization of her potential as a person. Even the minority of career-oriented girls feel that their roles can be counted as complete only when, in addition to fulfilling job expectations, they have also proved themselves successful wives and mothers. It is not difficult to see that if one's identity is equated with self-concepts based on the fact of being a woman, the intellectual and creative values traditionally cherished by the teaching faculty will come off second best. Moreover, the emphasis upon traditional femininity operates to effectively bar the young Vassarite from certain courses and careers viewed as essentially masculine prerogatives. She

<sup>4</sup> Riesman, David. *Constraint and Variety in American Education*. Lincoln: University of Nebraska Press, 1956.

<sup>5</sup> Smith, John E. *Value Convictions and Higher Education*. New Haven: The Edward W. Hazen Foundation, 1958.

<sup>6</sup> Eddy, E. D., Jr. *The College Influence on Student Character*. Washington, D. C.: American Council on Education, 1959.

cannot be too intellectual lest she threaten her feminine identity. Of course, this process also works in reverse so that the young man who conceives of himself primarily in terms of masculinity will reject, for example, much of literature and art as not compatible with his self-image.

The Vassar student's orientation toward home and hearth has extensive ramifications. The interest in public affairs is minimal, as Jacob discovered. Our subjects, with rare exception, have no desire whatsoever to seek fame and, similarly, they do not anticipate that their husbands will go to the top. The ideal male is hard-working, home-loving, *togetherness-oriented*. He should be firm, decisive when necessary, always, in fact, the head of the family. With the partial revival of traditional sex roles in the post-World War II era, Vassar girls not only consider the feminist cause a dead issue but seem now to welcome in the marriage relationship a position subsidiary to the male.

As for matters bearing on the educational process itself, we have affirmed at Vassar what we suspect is true on most campuses; namely, that the peer group is the fundamental social unit for the vast majority of students,<sup>7</sup> and as the peer group goes, so goes the individual's education. I am sure that we have here one characteristic of the undergraduate which has *not* changed. It has been, and is, a fundamental fact that for young people (and for older ones, too, for that matter) approval of age-mates is placed above most other considerations.

We all know that students, faced with a conflict between parental values and student norms, will usually decide in favor of the latter. But we may not be quite as cognizant of the fact that if there is a discrepancy between faculty values and student goals, the decision still goes in favor of the latter. At Vassar we have been able to chronicle a number of the techniques whereby the student society protects itself against undue academic influence by holding the faculty at a distance and by controlling the interchange of information and ideas.

It cannot be maintained, however, that nothing worthy of faculty approval ever becomes a part of the student. Jacob tells of colleges with a "peculiar potency" for inculcating the ideals generally associated with a successful liberal education. Vassar is not listed as one of those institutions with a special ethos but we can report on the basis of our psychological testing program that some interesting trends become apparent during the four-year college experience. When seniors are compared with freshmen we find that the seniors are characterized by greater flexibility, less compulsion, more tolerance for the ambiguous, more rebellious attitudes toward authority, greater recognition of the importance of inner feelings, more realism and self-confidence, less conformity, more instability, upset and uncertainty. To put it succinctly, we find that the senior has reached a state where she is really quite educable and, indeed,

<sup>7</sup> Freedman, M. B. "The Passage through College." *Journal of Social Issues* 12:13-28; 1956.

many students nearing graduation express regret over having to leave now that they are getting into the swing of it.

I should add two remarks about our educable seniors. One is that, for all their openness and increased critical facility, they do not transgress the bounds set by student culture and the norms of U.S. society-at-large. Further, we have evidence from our studies of Vassar alumnae that there is some regression in the post-graduate years so that, in time, value-orientations become stabilized at a point approximately midway between the freshmen and senior levels.

In sum, the Vassar data would suggest that our contemporary undergraduates are, psychologically at least, open to change. The basic question would seem to be: To what extent can this potential for change be utilized by educators?

The study of Bennington by Newcomb<sup>8</sup> in the late 1930s can serve, I think, to clarify the present state of affairs. As you know, students who came to Bennington, by and large, adopted the liberal social and political philosophy of the faculty, even though this frequently necessitated a sharp break with parental standards. This transformation in student thinking came about, in part, as a reflection of the temper of the times and also as a result of the fact that the student leadership which set the pace for the peer group adopted the faculty values so that the energies and interests of the majority of the student body were placed in the service of faculty goals.

But the times have changed and so have the students—not in their allegiance to each other but in what they, and Americans in general, hold to be important. Security is sought in the smoothly-functioning group. Our contemporary U.S. culture presents the appearance of stability which encourages an accentuation of the present and calls for neither drastic reform in the future nor a need to learn from our past. To many students, the major mileposts in life are clearly marked and while a college education is an integral part of the scheme of things, there is no need to seriously revise one's thinking about basic issues.

Moreover, the freshmen who arrive on campus today are, as a rule, already quite educated. At least, as Riesman has noted, we no longer get those "diamonds in the rough" who had such a satisfactory way of flowering under our nurturance. Agatha Townsend in her book, *College Freshmen Speak Out*,<sup>9</sup> has documented the many instances in which new students found themselves repeating in their first year much of the ground they had covered in high school.

I think it should also be remarked that the public in general seems, for the most part, to be satisfied with the way our colleges and universities are performing their role. It is true, of course, that a certain amount of concern develops over current crises—the demand for more scientists, the inadequacy of facilities, the bulging enrollments, increas-

<sup>8</sup> Newcomb, T. M. *Personality and Social Change*. New York: The Dryden Press, 1943.

<sup>9</sup> Townsend, Agatha. *College Freshmen Speak Out*. New York: Harper and Bros., 1956.

ing costs, *etc.*—yet when steps are taken, however ineffectual or uncertain, in the direction of alienating this or that problem, the anxiety tends to subside.

All this would seem to suggest that professors who are discomfited by the serenity and self-satisfaction of the contemporary student, not to mention his parents, may be tilting against windmills when they try to introduce change into higher education as it is presently constituted. Be that as it may, it is surely essential that we be aware of the odds posed by the larger cultural milieu. This is not to say, however, that nothing can or should be done. In reading Eddy's book I was impressed by the number of experimental programs being attempted or, to be more precise, by the concern on the part of educators which these programs express.

I realize that in this short article I have been able to do little more than review some of the larger issues bearing upon the characteristics of our undergraduates. From the many potential implications I select two which would seem to enter imperatively into any over-all planning for increasing the effectiveness of programs of general education. First, if we think that one measure of the success of a college or university education is to be found in the magnitude of change in student values, then it may be more profitable, at least in the beginning, to concentrate our efforts on those areas of young people's lives which concern them most and are therefore most ripe for revision.

Second, the student peer group (or groups) has the upper hand on most campuses. Given the present structure of social organization in higher education, it is they, the students, not we, who have the final say as to how deep and thoroughgoing their education shall be. I suggest that we bear in mind that this is not an inevitable state of affairs; a restructuring of campus society might conceivably bring about some heartening changes in the balance of power.

### ***Student Characteristics and General Education***

**Dyckman W. Vermilye, RECORDER**

*Dean of Men, Rollins College, Winter Park, Florida*

STUDENTS GENERALLY VIEW individual instructors as outside the main stream of important American activities, and, consequently, as of little value to their personal development outside the classroom. There is a possibility that faculty and student goals will never coincide. It would be helpful if students felt that faculty goals were complementary to student goals, and that by satisfying the former, they would be better equipped to satisfy their own. One possible way of restructuring the campus to create an environment in which faculty

and student peer group values might be more readily intermixed would be to establish a living and learning situation involving both groups. Students and faculty living, eating and studying together in a residence hall might encourage a concept in the student of the *liveness* of the instructor.

NOTE: Chairman of Group 11, Section 1, was AGATHA TOWNSEND, Associate Professor of Elementary Education, State Teachers College, Kutztown, Pennsylvania.

### ***Student Characteristics and General Education***

**James I. Doi, RECORDER**

*Director, Institutional Research, University of Colorado*

THE TYPICAL American college student, as portrayed in recent reports, falls far short of the kind of college product necessary to cope with the complex national and international problems confronting us. We must critically re-evaluate and overhaul our general education programs, taking into consideration the following two factors, among others: (a) the value configurations of the students' peer groups, and (b) the role played by these groups in determining student values.

Colleges and universities have generally not encouraged students to participate in the intellectual life of faculty members. On many campuses the faculty has an intellectual life quite separate from that of the students. There is some evidence that students would like to bridge this gap.

An intensive and continuous program of research of student values should be undertaken, and the findings used by institutions to guide themselves in developing effective programs of general education.

NOTE: Chairman of Group 11, Section 2, was W. HUGH STICKLER, Director, Institutional Research and Service, Florida State University.

### **Student Characteristics and General Education**

**James H. Albertson, RECORDER**

*Administrative Assistant to the President, Ball State Teachers College*

IMPLICATIONS OF THE changing characteristics of the undergraduate for general education programs might be more easily drawn if agreement could be reached concerning the nature of the undergraduate student.

In addition there is little evidence that in the past 30 years there have been many changes in the characteristics of the professional staff of colleges and universities. Higher education today has its share of both mediocre and outstanding faculty members. Efforts might well be directed toward identifying the characteristics and the professional competencies of the outstanding teacher—that person who inspires his students to achieve excellence.

Once agreement is reached on the characteristics of the undergraduate, and the competencies of the outstanding faculty member, attention can then be centered on the total educational environment.



*What Is the Significance for General Education of the Current Stress on Educational Rigor?*

**Stanley J. Idzerda**

*Director, Honors College, Michigan State University*

**B**EFORE ASKING ABOUT the presumed effects of the new rigor upon general education, perhaps it might be best to look into the origins and means and ends of both general education and the current stress upon educational rigor. For instance, it may be that the principles of general education have some significance for the current stress upon educational rigor!

The history of general education in the twentieth century has a rather Topsy-like quality, with all the overtones of illegitimacy that we usually connect with persons and institutions of uncertain or mixed origins. Generally speaking, I think that general education was a response to four problems created by institutions of higher education.

First, there was the intellectual smorgasbord of the free elective system. Regardless of its merits, the system gave no guarantee that the student would be exposed to a balanced academic fare. Second, there is the obvious increase in the cash register approach to higher education. Many students enter college simply to be trained in some vocation or profession. Whether the student is seeking expertise in marketing, or in the trade of teaching physics in college, the vocational emphasis comes to the same thing. For those who think the last citadel of liberal education is the small liberal arts college, I refer to Earl McGrath's study of these colleges, showing that vocational offerings are just about as common there as elsewhere.<sup>1</sup>

Closely related to the professional emphasis is the third factor: intellectual Teutonism at the undergraduate level. Intellectual Teutonism assumes that the student is preparing for an academic specialty in graduate school; each discipline must have its own department (and how the departments have multiplied!) and each student must take a major in a narrow field, as a precursor to graduate work in the same field.

Finally, the comprehensive urban high school, sending enormous numbers of students on to college, has changed drastically the social composition of the collegiate body. For a long time now it has not been safe to assume that all students enter college with the same cultural

<sup>1</sup> McGrath, Earl J. *Are Liberal Arts Colleges Becoming Professional Schools?* New York: Institute of Higher Education, Teachers College, Columbia University, 1958.

furniture possessed by a constituency derived almost exclusively from prep schools and the upper middle classes.

Since we are not born with an education, it is safe to say that we are born barbarians. Through a variety of persons, media, and institutions, and finally through our own efforts, we move to a stage which has the attributes of civilization. Formal education is not supposed to be a process by which we exchange one form of barbarism for another, but there is considerable evidence that quite often this is precisely what occurs for the hapless college student. In his *Age of Anxiety*, W. H. Auden put it this way:

The new barbarian is no uncouth desert dweller;  
He does not emerge from fir forests;  
Factories bred him, college towns mothered his mind,  
And many journals backed his beliefs.

Whatever may be said of the student who enters college, it seems safe to say that even if his pre-college educational experience was of the best kind available, he still is not an educated person. If he enters college and pursues either an intellectual smorgasbord, intellectual Teutonism, or the cash register, his education will have advanced very little, if at all; the odds are quite good that he will simply have exchanged one form of barbarism for another. The distinguishing feature of the new barbarian is that he probably will possess talents making him more dangerous and more confused than he was before. Certainly there is no incompatibility between being well-informed and being stupid; such a condition makes the student a danger to himself and society.

Among the chief responses to the danger of a new barbarism were the various educational plans at the undergraduate level lumped under the heading of *general education*. We need not consider as *general education* those plans in which a student must have a distribution of courses in a variety of fields outside his major. A student majoring in business administration takes a course in genetics, inorganic chemistry, the philosophy of Immanuel Kant, and in rural sociology; this may satisfy a *distribution* but any connection it has with general education is accidental.

Another response was to provide survey courses which were general enough to give the student a smattering of knowledge in several fields outside his major. The survey course has always been difficult to define. If one attempts to place it in the main stream of education, one finds that the stream has dried up and all that is left is flotsam and jetsam. To be sure, survey courses have merits: they provide entertainment or soporifics for undergraduates, coin of the realm for authors of texts, and countless jobs for those unrebellious proletarians of academie, the graduate students.

To be sure, *distribution* and *survey* are key ideas in any program of general education. However, taken singly or together, and pursued for their own sake does not make general education. I would suggest that

a viable general education program is based upon a number of considerations which go beyond administrative devices arranged to handle undergraduates before they are ready to take advanced courses.

What are some of these considerations? That man's first vocation is to become what he is; a human being, and that higher education ought to reflect this fact; that the fulfillment of our human vocation in college involves a development of the intellectual virtues: understanding, wisdom, science, prudence and art (if you don't care for Aristotle's categories, choose your own). That the pursuit or development of these virtues includes both formal and material elements: the function of the student is not merely to assimilate knowledge as defined by the school; he must be aware that selection, organization, analysis, synthesis and communication have some significance as well. The curse of a secondary education is the undiscriminating mind, a mind which assumes all details to be of equal relevance as long as they are *facts*.

In detail, such considerations mean that the college will see to it that the student's curriculum includes a course or series of courses that enable the student to attempt an integration of what he knows or can know about God, man and nature. Very simply put, general education is that education which enables the student to know his past, his place in the present, and enables him to communicate with himself and others concerning the questions that should move us all.

This means that the courses are not merely *introductions to or surveys of* something or other. It means that those involved with a general education program have to do some things quite unusual for a college faculty: instead of assuming that mastery of a subject matter is the first and last prerequisite for the college teacher, the faculty member interested in general education must ask himself the significance of every element in the course being taught, its relationship to other subjects or areas, and, most radical of all, he pays some attention to the quality of his teaching. For those who are unfamiliar with the interests of faculties of general education, a survey of the articles in the *Journal of General Education* or in the *Basic College Quarterly* will prove instructive.

Now, what of *educational rigor*? The new stress upon it has several possible origins. First, nostalgia; a rigorous education is almost always the kind that the last generation got. An important element in this nostalgia is that *rigor* is identified with the content of the curriculum; the classical curriculum of the genteel tradition is often thought to be more *rigorous* than any other since that time. Second, it may be that both high school and college have alternate periods of expansion and re-examination. After democratizing educational opportunity, perhaps the educational system must then examine the effects of democratization: Did it mean a broader curriculum or a flabbier one?

Finally, there is the national interest. The Russian schools stand for no nonsense; we are told that we must imitate the Russian emphasis in education or be doomed to defeat by the Russians. We are told also that the technological and scientific needs of the next 50 years are such

that we must train many, many more people in the *rigorous* sciences and mathematics. Manpower and defense needs mean more educational rigor is necessary. If this seems an overstatement, read the National Defense Education Act. I know it seems unpatriotic of me, but the justification of national interest is one of the weakest of all possible arguments when we seek educational change or improvement. It tends to identify the interests of the individual and society with that of the state, or it tends to say that the interests of the state are pre-eminent.

It also seems to assume that the interests of the state are going to remain stable long enough for educational changes to follow them. If the Russians are as shrewd as everyone seems to think, it is perfectly possible that they have a whole string of secret schools behind the Urals, where they are trying to produce poets and theologians. When our spies discover this, Congress will doubtless decide that poetry and theology are just as important for the survival of a civilization as technology and science. This is not entirely improbable; last year we discovered the Russians were interested in piano players as well as missile makers; note the national response to Van Cliburn.

As for the specific details of a program stressing *educational rigor*, they usually run somewhat as follows: a standard curriculum including much more work in mathematics, science and foreign languages. In what ways these areas will help in the pursuit of the intellectual virtues is not quite clear. All I can see at the moment is that (1) math, science, and language are difficult, and if we stress difficult courses, we are being rigorous; (2) we should emphasize the subject matter, the content, over any or all other considerations.

I submit that the stress upon educational rigor has not been thought out very carefully. Too often it is a mindless reaction to public or official criticism, saying, in effect, if we punish ourselves with things that we don't like or that are difficult, then we are producing the necessary rigor. I submit further, that the current re-examination may lead the rigorists to the better general education programs.

If the stress upon rigor is effective within general education programs, it might eventuate in a renewed emphasis in the field of communications. What I have in mind is quite simple. I am suggesting that in few courses anywhere is the student taught or required to express himself effectively. It might be well for those in general education to give up the luxury of the specialists, who complain that no one has ever taught their students to write. Second, the emphasis upon rigor might lead those in general education to seek a closer relationship between the work the student takes in general education and the rest of the curriculum. Ideally speaking, all the student's experience in college should contribute to or relate to his general education. If the stress upon rigor does not result in rigor mortis, we may see the values and methods of general education infiltrating every classroom.

## *Educational Rigor and General Education*

**Sister Margaret Gertrude, RECORDER**

*President, Nazareth College of Kentucky*

THE TERM "general education" should be restricted to that form of education wherein the intellectual potentialities of the student are so activated that he becomes possessed of true wisdom which, in turn, renders him capable of viewing all things in their true perspective.

Educational rigor, being taken to signify the application of the emphasis required to promote effectively a genuine program of general education, is salutary and timely, and pressing in the area of communications. With judicious stress on educational rigor, general education may infiltrate the entire educational system to the end that there will be effected, independently of any national emergency, a true revival of learning in our colleges and universities.

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NOTE: Chairman of Group 12 was CHARLES DOREN THARP, Vice President and Dean of Faculties, University of Miami.



## What Should Be the Direction of Graduate Education?

Bernard Berelson

*Director, Study of Graduate Education, and Professor of the Behavioral Sciences, The University of Chicago*

**B**EFORE RAISING A FEW questions that seem important for any consideration of the future of graduate study, I should say that I think it makes little sense to discuss what *should* be the direction of graduate education without constant reference to what the direction is likely to be; that is, to the current practices that demand to be taken into account. Otherwise, I am too likely to end up with the well-known advice of the Vermont farmer to the man who asked him the way to Boston: "If I wanted to go there, I wouldn't start from here." In the case of graduate education, the situation is worse because we don't even know what Boston is, where it is, or indeed if it is. Discussion of criticisms and desiderata without realistic, programmatic consideration of the going system is like exhorting the sea: it may give the performer a great deal of satisfaction and even a sense of power, but it doesn't affect the object very much. If we were starting anew to devise a system of graduate education for this country, we could go in several directions that are now closed to us by the history, the commitments, the experience, and the interests involved in the present system.

Can the present program of graduate study be changed in any fundamental ways in order to improve the preparation of college teachers? If so, should it be? What are the major objections to the present program from the point of view of the critics concerned with the preparation of college teachers? The general argument is that since most Ph.D.'s teach and few make contributions in research, let alone real contributions, their training should reflect that state of affairs. This argument was not strong enough to force the desired reforms 30 to 35 years ago and it is less strong today—fewer Ph.D.'s go into teaching now and more publish research papers.

As for the specific criticisms, they seem to me to be three, leaving aside the problem of numbers.

First, the graduate school does not admit the right students from the standpoint of college teaching. Now it takes a hardy critic indeed to argue in public these days that the criterion of intellectual capability should not be the major or even the exclusive test of admission to graduate school even though other qualities subsumed under the popular

term "personality" may be valuable and even necessary in the college teacher on the campus. Subsequent selection by such qualities rather than primary admission seems to be the approved method.

Second, the graduate school does not give students good or sufficient training in the practice of college teaching itself. The last thing the graduate school would permit, or the better colleges want, is what is called methods courses in the department of education. For the rest, supervised teaching assistantships or their equivalent seem to be the best acceptable answer yet devised at the graduate level. And when pushed too far, the advocates of present practice point the finger back at the colleges and remind them that they are the only professional institutions that expect newly-trained degree holders to operate at full capacity without a breaking-in period. M.D.'s don't practice medicine right away; most J.D.'s don't practice law; even Ph.D.'s in industry are given a special training period before they are expected to produce. This counter-argument implies that it is the graduate school's business to prepare the student in *what* to teach and the college's business to tell him *how*.

Third, the graduate school unduly stresses depth at the expense of breadth. This is where the semantics usually take over the argument, since what is depth to one is narrowness to the other, and what is breadth to the second is superficiality to the first. At the least, it can be said that the graduate school prepares a student in the subject or discipline in which he typically teaches. And depth *plus* breadth in graduate study, however defined and however desirable, does not seem to be practicable in either time or money, and probably not in energy or capability, especially in view of the heavy increases in the amount of knowledge to be deep and broad in simultaneously.

What are some current proposals for reform?

1. Two doctorate degrees—one for teachers and one for researchers.
2. An intermediate degree between the present master's and doctorate, especially designed for college teachers (or rejuvenation of the master's itself, to which I come later).
3. Interdepartmental programs designed for breadth.
4. Internships and the like, designed for technique and practice in teaching.

The first idea has been around a long time but has gained little support from either the colleges or the graduate schools. The second has possibilities but also severe obstacles in its way. Interdepartmental programs are usually considered thin, and internship not much better than teaching assistantships or the usual first job.

Any revision of graduate study to prepare more and better college teachers is not likely to get far unless it comes to terms with two hard facts, (1) the graduate schools will not diminish their emphasis on research and scholarship—blame it on blindness to other gods, on the national emergency, on professorial inertia, on the heritage of copying the Germans in the first place, but there it is and (2) the colleges want Ph.D.'s—blame it on institutional vanity, on the accrediting associations,

on the magic of the degree, or on the fact that those who set the requirement are themselves products of the system, but there it is.

My conclusion is that the advocates of reform of the graduate school for the benefit of college teaching have problems, complaints, and exhortations to present—everything, in short, except an actionable program.

What is the best, yet realizable, national distribution of graduate study over the next years? For example, should the major load continue to be carried by the big prestige institutions that were first on the graduate scene, or should it be spread out more, and if so, how far? There is no problem in graduate education that excites more political concern than this. And no wonder. It has its roots in the classic base of political controversy—the struggle between the haves and have nots. Paradoxically enough, it is the very prosperity of graduate education, through the big national fellowship programs of the National Science Foundation and Woodrow Wilson, that has sharpened the issue. Such programs have enabled more of the better graduate students to be drawn to the prestige institutions and away from the next or lower layers of institutions that are trying to develop their graduate programs, partly for their own sakes and partly as a contribution to the national supply.

On the one hand, it seems only reasonable and fair that the better student should be enabled or even encouraged to go to the better institution, especially since his academic career depends on how high he is at its start. But is the better institution better because its training is better or because its students are? On the other hand, it seems only reasonable and fair, from the standpoint of the national demand and the long run, that more institutions be encouraged to carry the graduate load in order to improve our chances of meeting the need for numbers in the next decade or so. But does maintenance of standards readily mix with unlimited expansion by institutions? It may be instructive to note that of the 10 top graduate schools in 1957, according to a rating based on the judgment of department heads, nine were charter members of the AAU in 1900 and the tenth was admitted in 1908; so no institution that entered the field in the past 50 years has been able to make that top rank.

Here again the trends may have the final say. The prestige institutions still award a large proportion of all Ph.D.'s but not nearly so large as they did before the war. And the great private universities have lost relatively the most ground, and will no doubt lose even more under the impact of the heavy enrollments coming to the state universities in the years ahead—which will mean heavy graduate enrollments as well, both directly and indirectly.

My conclusion at the moment is the kind of compromise that satisfies no one, including me: students should go to the best institutions they can get into (where they define "best" themselves); the better institutions should be filled to capacity before graduate programs are extended to new entrants; and withal, there is still room for expanding doctorate programs in a substantial next layer of institutions now ready for such a development. In the end, the market will rule.

Should the trend toward professionalization of graduate studies be encouraged or discouraged? Here I mean *professionalization* in the narrow sense, not as a broad demographic category but as a term indicating an emphasis on the application of learning rather than its production or transmission. I refer first to the growth of graduate study and the extension of graduate degrees in professional schools. In addition to the traditional arts and sciences where the degree began, the doctorate is now given in schools of business, education, engineering, journalism, social work, librarianship—indeed for almost every type of professional practice as well as for every type of academic learning. What is more, the degree in several large academic fields has come more and more to lead to professional practice in this narrower sense of doing rather than learning and teaching—for example, in chemistry, physics, biochemistry, psychology, economics. Thus, academic disciplines themselves are turning out Ph.D.'s who not only go into practice rather than into academic life, but who are aiming at practice from the start and being trained for it. Over the years, then, there has been a mutual infiltration of academic and professional fields within the universities of marked character. Many mathematicians and physicists are now found in schools of engineering, many biologists in schools of medicine, many psychologists in schools of business and education, many sociologists in schools of social work. In general, movement in graduate education from academic to professional objectives and outcomes has meant a shift in image that can be represented by such phrases as these: from scholarship to practice, from learning to proficiency, from ideas to techniques, from cultivation of wisdom to development of skills.

Now this change in graduate education can be viewed, and is, as both good and bad and from both sides. Increasing the professional component of academic study at the graduate level is seen as deteriorating scholarship on the one hand and as making learning useful on the other. Increasing the academic component of professional study is seen both as the enriching of practice and as the false application of abstract theory to practical affairs in order to gain a dubious respectability. In any case, here is another trend in graduate study that cannot be erased or even reversed, and it is important in the definition of what graduate study is and should be about in the years ahead.

My conclusion is that there are definite values for both sides in this rapprochement—it keeps the one from a too narrow focus on immediately practical affairs and it keeps the other in contact with the real world—and I do not regard the trend as necessarily a matter for regret.

Finally, should graduate education as a whole, or should particular disciplines and institutions, give up on the master's degree as anything more than a qualifying badge for teachers in secondary schools (and I should have added, as a consolation prize and testing device); or should the system, or parts of it, try to reinstate the master's as a *scholarly* degree sufficient for the preparation of college teachers? As a quality degree, the master's degree has been going down for a long time now in the

"prestigious" institutions, largely under the impact of numbers (if nothing else, there were simply too many master's theses to read, let alone supervise). It has more and more become a degree for secondary school teachers, largely under the pressure of state requirements for such positions; about half the masters today are given in departments of education. It has held out in some parts of the country, but not those that lead American education. To my best knowledge, no degree has recovered status and substance once it has lost as much as the typical master's has in the past 30 years or so.

Furthermore, the proponents of a rejuvenated master's to supply the college teachers for the coming bulge have to come to terms with the college's strong desire for Ph.D.'s. The proponents of having a strong master's in academic subjects given at the better colleges and lesser universities as a reliever of and feeder for the great universities have to reckon with the plans and ambitions of the former institutions as well as with the problem of numbers. The better colleges can at best train too few master's to make any real difference unless they shift their attention markedly away from their undergraduate concerns, which they will not, and should not, do. As for the position of many graduate schools, that is best expressed in the words of a graduate dean who remarked to me, "As for the master's, I am abandoning it to its fate."

My conclusion is that the master's degree cannot now be reinstated as an acceptable degree for college teachers of academic subjects. In the end the colleges may have to take it, but they won't like it.

These seem to me to be some important questions, problems, and observations about the future direction of graduate education.

### Future of Graduate Education

**Joseph Seidlin, RECORDER**

*Dean, The Graduate School, Alfred University*

THERE ARE two directions in graduate education even as there are two kinds of institutions for graduate work; *viz.*, the institutions for higher learning and the higher institutions of learning. The former, for many years to come, are not likely to change appreciably the present program and requirements for the advanced degrees, especially the Ph.D. degree. The key objectives will remain research and scholarship, in that order. Whether continued emphasis on research and scholarship is the only way to produce effective college teachers is open to question. Whether the insistence of administrators of higher institutions of learning that a Ph.D. is *sine qua non* to college teaching is also

open to question. Where will concessions be made: to the Ph.D. *standards* or the Ph.D. as a *union card*?

Whatever directions graduate education will take, the professionalization of college teaching is making slow progress. Admittedly, little is known about the preparation of college teachers and pioneering is not the most prominent, or even a characteristic, activity of graduate schools.

NOTE: Chairman of Group 13, Section 1, was J. PETER ELDER, Chief, Graduate Fellowships Section, Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

### ***Future of Graduate Education***

**Harold A. Foecke, RECORDER**

*Project Director, Committee on the Development of Engineering Faculties  
The American Society for Engineering Education, University of Notre Dame*

THERE SEEMS TO BE growing agreement that college teachers need some form of specialized preparation. There is less agreement as to whether provision of this preparation should be a function of the graduate school, although an increasing number of graduate schools throughout the country are instituting such programs. The State of New York has established a fellowship program for prospective college teachers which provides both academic preparation and "professional orientation for college teaching."

So long as institutions employ teachers with less than the Ph.D. when they can get nothing else, the establishment of an accepted intermediate degree between the M.A. and Ph.D. is unlikely to succeed because the teachers involved must give the appearance of still working on their doctorates. Under certain conditions it might be possible for a sharply increased Ph.D. output to meet the need for college teachers, but this would probably, though not inevitably, entail a reduction in the quality of graduate education.

NOTE: Chairman of Group 13, Section 2, was GEORGE W. GORE, JR., President, Florida Agricultural and Mechanical University.



## To What Extent Can Administration Involve Faculty and Student Participation and Still Be Efficient?\*

Samuel B. Gould

President, Antioch College

**S**INCE I HAVE LIVED WITH the practical aspects of faculty and student participation in administration for almost five years, there is a great temptation to approach it from almost an autobiographical or case study point of view. My own institution has gone farther in developing and encouraging such participation than most colleges or universities in America. But I shall resist the temptation and consider faculty and student participation in administration in terms of its desirability, its feasibility, the degree of comprehensiveness it should have, and some possible results of such a policy. And I shall be frank in recognizing negative as well as positive values.

There are at least three highly desirable aspects of a cooperating and participating approach. The first is the simple but all-important matter of *communications*. The experience of every campus I have ever known shows that by far the greatest number of misunderstandings and tensions that develop are the result of an inability to communicate. Even in institutions where the most careful efforts are made to prevent this, the problem recurs with almost monotonous and frustrating regularity. The opportunity for representatives of the faculty and student body to be present when policy decisions are being made is at least some insurance against misunderstanding, provided that these representatives take the trouble to relay their experiences to their respective constituencies.

A second desirable aspect is that of the *advice and counsel* emerging from such cooperation. Occasionally administrative decisions and actions take no account of faculty and student reactions. What may appear a very logical and proper course of action for the administrator will sometimes undergo adaptations and revisions once he has had his attention called to the particular needs or feelings of the rest of the college. One might expect that good counsel would come from faculty, and it does, but my experience has been that students are oftentimes remarkable in their analyses of administrative problems, particularly those having direct relationship to the students themselves.

Still another desirable aspect is the effect of joint participation upon

\* The actual title of this paper was "Faculty and Student Participation in Administration."

morale. A new and higher degree of mutual trust is engendered when the administration is willing to discuss openly and freely many of the policy decisions greatly affecting the whole campus community but ordinarily made unilaterally. The importance of the opportunity to be heard cannot be overestimated. We who are so anxious to show the positive elements of democracy and to familiarize our students with them should think carefully before ruling out anything but token recognition of student participation. There are too many college and university administrators who feel their responsibility to democratic living has been fulfilled when they create a student government structure with a few minor areas of jurisdiction in which the students can play as though with toys. If we think that by this device we are fooling the students, we are greatly mistaken. Much of the apathy toward student government on some campuses today stems from the realization that it has not been created to allow real decision-making on anything important.

Of course there are undesirable aspects to be reckoned with also. There is, for example, the expense in time, energy and money represented by the efforts that must be made by all involved if success is to be achieved. Some people of experience question seriously the feasibility of operating under such a policy. The hours of administrative and faculty time that must be given to conference or discussion are not to be minimized, for if one were to make estimates of what such time meant translated into salaries, they would be high. Similarly, the hours of student time taken away from studies is to be reckoned with. At a time when colleges and universities are in straitened financial circumstances, one cannot brush aside lightly the implications of added burdens to faculty and administration. This seems to be a period when we are trying to streamline and curtail all extraneous elements of the faculty load rather than add to them.

Furthermore, there are the dangers resulting from the encouragement of pressures from the more vocal groups on campus once they know they are represented at the conference table. It *can* happen and occasionally does that the participation degenerates into active campaigning by minority groups rather than dispassionate examination of a problem. The policy of participation can also lead some faculty and students to develop a feeling of power and control to the extent that they begin to overstep their proper function. From this the very opposite of good morale can occur, with sharp cleavages and bitter misunderstandings. It should be remembered that when faculty and students are asked for and freely give advice, they can become greatly disappointed should their advice not be taken. And it should also be remembered that such advice cannot necessarily always be taken and followed to the letter, so that disappointments do occur.

Another undesirable feature is the added complications of the process itself. Inevitably there is more organization, there are more committees, more meetings, more jurisdictional problems, more discussion and debate

caused by differences of opinion. This may mean that a decision otherwise arrived at in hours or days may take weeks and even months.

My own feeling, however, is that the advantages outweigh the disadvantages and that the desirable elements, properly handled, have more educational potentiality. There may be additional costs in time and money but they are an investment in the stability of the institution and the on-going interest and support of its various constituencies. It is even possible for certain savings to occur when faculty and students undertake some of the administrative responsibilities. Students, for example, can under certain circumstances eliminate some of the staff help ordinarily assigned to residence supervision and the social programs. There may be more meetings and more debate, but there will also be more vitality and dynamism. There may be more unrest, but I am not at all certain that unrest is bad for a campus. I am a little bit suspect of those places where everything moves with quiet speed brought about by well-oiled administrative machinery that has no place or time for the faculty member or student. Nor are the inefficiencies that appear to accrue from democratic processes necessarily inefficiencies in the long-term education view.

Whether the participation approach will succeed or fail depends, I think, upon two factors: the care with which a philosophical base for such a policy is established, and the knowledge on the part of everyone of just how comprehensive it is intended to be.

The inauguration and development of a policy of faculty and student involvement must be based upon an agreement by all parts of the community with the philosophy that such involvement is important enough to be considered part of the total educational process and that it is compatible with the purposes of higher education. Otherwise there will be constant or frequent questioning about just how much the policy constitutes a threat to the primary academic functions of faculty and students. There must be general approval of the policy in spite of the knowledge that it is bound to encroach upon time and effort otherwise expended in other ways. If it is felt by enough people that an opportunity to advise and often to share in administrative policy decisions is valuable as an aid to building a strong institution, a strong faculty, and an understanding, loyal and democratically oriented student body, then there is a good chance for success. From such a policy stems the possibility that the campus will be more of a single community instead of a tripartite one with carefully erected barriers between the segments.

Although there are actually very few areas in which faculty and students cannot assist, I believe the ground rules should be very specifically set forth from the very beginning. Indeed, if such a program were to be founded, it should not try to encompass too much at the start. There is much to be learned in the first few efforts, and a responsibility once given cannot be easily or lightly taken away. Furthermore, there are some areas that ought to be reserved to the faculty alone as well as a few that belong entirely to the students. Matters of professional ethics or faculty development, for example, are not ordinarily assisted mate-

rially by student participation, while in the social activities there is some question as to the necessity for taking up faculty time. And sometimes the general policy needs to be defined much more specifically to fit a particular instance. A planning committee considering a new residence hall or a union can benefit greatly from a good deal of student assistance; other types of buildings may benefit to a lesser degree.

In general, however, my experience has been that faculty and students together are valuable advisers in such matters as budget planning, building planning, selection of faculty, granting of promotion and tenure, educational policy making, student personnel problems, social programs, and broad college policy. When students on a budget committee help decide upon a tuition increase, there is less likelihood of any protest by the total student body. Student evaluations of faculty for promotion and tenure are important pieces of information, frequently more accurate and discerning than any other. It goes without saying that faculty participation in educational policy planning is a requirement if there is to be any hope of making innovations or changes in the academic program.

A college community is a totality, not just a combination of component parts. If this is so, then the active participation of representatives of the total community wherever possible will do much to create a favorable and friendly climate in which progress can take place and solutions to problems can be reached with mutual trust and understanding.



## To What Extent Can Administration Involve Faculty and Student Participation and Still Be Efficient?

Ferrel Heady

*Professor of Political Science and Associate Director, Institute of Public Administration, The University of Michigan*

**C**ONSIDERING THE IMPORTANCE and the prevalence of the issue of faculty and student participation in university government, it is rather surprising to discover how tentative and hesitant are the propositions which have been suggested as guiding principles. We are a long way from a consensus on this, in contrast, for example, to even such a controversial area as that of academic freedom and tenure. Perhaps this is a reflection of the diversity of American universities of higher education, but I suspect that this is only part of the answer, and that we have here a problem area which deserves much more concentrated attention than we have given it in the past.

A hypothesis which I would suggest is not that faculty and student participation threatens efficiency in university administration, but that a high degree of actual (although not necessarily formal) participation, especially by faculty, is essential to efficiency in the administration of American institutions of higher education.

Efficiency is a slippery word. It is like home and motherhood, in that nobody wants to be identified as opposed to it or as a supporter of inefficiency. However, the meaning of efficiency is a matter of some controversy, and students of organization seem to have less, rather than more, confidence than they once did as to what efficiency is or how it can be measured. For my purposes, a rough definition might be that efficiency means the effective utilization of available resources for the attainment of organizational objectives. This makes efficiency partially dependent upon the character of the organization and partially dependent on the nature of the objectives which are being sought.

Even in studies of business and governmental organizations, students of bureaucracy and administration seem to be stressing recently this linkage between efficiency, organizational characteristics, and organizational objectives. If such considerations are pertinent in judging the efficiency of business concerns, labor unions, or government departments, they would seem to be even more relevant for colleges and universities.

Colleges and universities are singular organizations. John Millett, while he was still a professor and before he became president of Miami University, called them social institutions unique in their structure of

authority and power. The essential point here is that because of the nature of a university, the actual pattern of participation in administration does not, and should not, conform to the formal legal prescription as to how universities are to be governed. There is no doubt whatsoever as to the legal formula for the exercise of power in our higher educational institutions, both public and private. Governing boards are in charge, and their principal agents are presidents and deans. But, as Millett points out, "Legal prescription is no guide whatsoever to the realities of university operation . . . this legal conception of absolute authority on the part of trustees is faulty insofar as academic tradition and practice are concerned."

Robert H. Roy, of The Johns Hopkins University, in his new book *The Administrative Process* discusses the mores of organization behavior, placing academic and military organizations at opposite extremes. In academic organizations, he asserts, "Those in administrative positions cannot give orders. Behind this lies a long tradition of academic freedom, job tenure, diversification of scholarship and technical knowledge, and an absence of interdependence between branches of the organization."

These statements may go too far in the direction of asserting that university administrators do not actually run things, but it is surely realistic to say that in the long run administrators imperil their own reputations and the standing of their institutions if they fail to involve faculty and students enough to give them at least a feeling of participation in the conduct of university affairs.

Even if it is conceded that participation may contribute to, rather than detract from, efficiency in administration and that an absence of participation is hazardous, the problem remains as to the kind of participation which is desirable and feasible. We must consider, in other words, the proper roles of trustees and administrative officials, faculty, and students in the administration of higher education. I will not attempt any clear-cut authoritative allocation of roles. Indeed, aside from the formal assignment of over-all responsibility to the governing board, such a delineation is probably not possible. I can suggest, however, some special areas of concern to faculty and students where their participation would be normally desirable.

The determination of educational policy is particularly suited to faculty action. This is not only where the professional expertise of faculty members lies, but it is also a traditional prerogative tracing back to the medieval university. This area of concern includes such fundamental matters as curriculum development, standards for admission of students, and certification of candidates for degrees. Ordinarily these decisions are willingly delegated to faculty bodies by governing boards and higher administrative officers, and are not common points of conflict.

Another broad area of concern to faculty is the selection of personnel. Particularly with respect to the appointment and promotion of teaching staff, the collective judgment of faculty colleagues should be sought and followed except in unusual circumstances. This is crucially necessary at

the stage of advancement to a rank carrying tenure privileges. But faculty participation should go beyond this to the choice of administrative officers ranging from departmental chairmen through academic deans all the way to the president of the institution. This is not a plea for abdication of concern or responsibility by administrators or governing boards or for turning over final power to act to faculty groups, but only for sincere consultation with, and cognizance of advice by, the faculty at appropriate levels considering the post to be filled.

Another faculty concern is no less significant but somewhat harder to describe or delimit. This has to do with the budgeting of funds or, more broadly, with the allocation of available resources among competing demands. These decisions affect everything else. They determine the futures of individuals, departments, schools and institutions. The voice of the faculty should be heard, even though the decisions made are joint decisions of faculty members and administrators, and the ultimate approval comes from the governing board.

The scope of student participation I find much harder to identify. Who can deny that students have a legitimate concern with almost everything that goes on at an educational institution? After all, colleges and universities exist for the education of students. This is not the only function of these institutions, but it is the central one. Students are interested in what they are being taught, in who their teachers are and how they teach, and in all the incidental arrangements for university life. At the same time, student participation in administrative affairs must be by relatively young and inexperienced individuals, who are only around for comparatively short periods of time. As a minimum, students should have the opportunity to inform themselves and to express their opinions on a wide range of administrative issues, including such obvious matters as the quality of course content and of teaching, disciplinary actions involving students, recognition of student organizations, and various extracurricular problems ranging from intramural athletics to whether there should be a homecoming queen or girl cheerleaders.

No matter what attitude is accepted concerning the extent of faculty-student participation, much depends upon the organizational and procedural arrangements which are made to facilitate this participation. Floundering, misunderstanding, and mismanagement result from inattention to these prosaic arrangements. Specifics must vary from institution to institution, but I would stress three prerequisites for success:

1. There should be an elected student government council or some similar device for representation of student views, supplemented by specialized agencies for particular purposes such as the handling of disciplinary cases.
2. Faculty government agencies are needed at each major level of organization. These will probably take the form of faculty-elected executive committees in departments and schools, and a faculty senate or council for the institution as a whole. Direct faculty representation on the governing board has definite advantages if it can be

- arranged, but a direct channel of communication between the faculty senate and the governing board should be a minimum provision.
3. Delegations of power to act which are made to faculty or student bodies should be clearly and officially set forth, and should be faithfully honored as long as they are in effect. The consequences of failure on the part of governing boards or administrative officials to live up to prior commitments can be disastrous to faculty or student morale and to harmonious future relationships.

Barriers to the achievement of improved relationships among administrators, faculty, and students are numerous, and they have not by any means all been erected by administrators. Perhaps it would be discreet on my part to refer only to some of those which can be attributed largely to professors and students.

We might as well recognize that our folkways on college campuses nurture a sense of *apartness* rather than *togetherness*, tending to put students, teachers, and administrators into competing camps. Professors say with a smile but with an edge in the tone of voice that the university would really be a fine place if it weren't for the students. Jokes on the general theme of how easy it is to convert a competent professor into a supernumerary dean are favorites with the teaching staff, and charges about the growth of academic bureaucracy are legion, even though the appointment of a new assistant to the dean or a new vice president may have been preceded by a doubling in student enrollment and a corresponding increase in faculty. To put it mildly, students are skeptical, and often with good reason, of the good intentions of both professors and deans when it comes to encouragement of student participation. The thoughts and words of administrators concerning faculty and students are less accessible but probably no more complimentary. All of this may indicate a healthy condition of free thought and speech. It may also mean that the controversies and apprehensions are actually less serious than they sometimes sound. Nevertheless, there is what Ordway Tead describes as "a certain psychological disparity and divergence of outlook" which produces a hazard to be overcome.

It must also be conceded that there are real difficulties in mobilizing both faculty members and students for effective participation. The highly individualistic inclinations of college professors have often been noted. President Logan Wilson of the University of Texas may be a little harsh on us professors when he classifies several types of "faculty deviants . . . whose actions foment conflict," but we must admit that too many of our colleagues resolutely combine a negative judgment about the administrative state of affairs with an unwillingness to devote time or energy to help straighten things out, and that occasionally a professor may take such delight in baiting the administration that he would probably feel frustrated and unhappy if his advice were accepted. At least these are attitudes which can be avoided by faculty members who want to make a positive contribution, but students cannot escape the fact that, for purposes of participation in administration, one generation of students

is all too quickly replaced by another, so that student representation is inevitably affected by inadequate background and lack of continuity.

Despite these difficulties and a good many others which could be mentioned, including several traceable to the foibles of administrators, I am convinced that at most institutions we need more, rather than less, active and responsible participation by both students and faculty. This will not be at a cost of real efficiency in the administration of our colleges and universities. Nor will it be a hazardous move on the part of administrators and governing boards. Richard H. Sullivan, reporting in 1956 on his survey of administrative-faculty relationships in a number of representative institutions, expressed the judgment that ". . . the conservative nature of an institution is ordinarily reinforced as the faculty takes on more powers in policy determination and execution . . . heavy faculty participation, in policy-making, in administration, in the conduct of personnel policies and practices, will act as a brake against sudden change in a high proportion of all possible cases." He goes on to say that such participation "is more likely than not to support the continuation of a trend, whether that be a steady improvement and forward movement or a backing downhill." In passing, I would like to point out that the last prospect he mentions is one that should serve as a caution against all-out insistence that at all levels the faculty should have a free hand in running its own affairs.

How can we make progress toward better participation? Some help can come from national or regional associations representing the groups which must cooperate. The American Association of University Professors has for many years maintained, as one of its national committees, Committee "T" on Faculty-Administration Relationships. This committee is now at work on a statement of principles concerning relations between faculties and administrations which, it is hoped, may serve some of the same purposes as existing principles concerning academic freedom and tenure. Other groups can give attention to these matters from the point of view of administrators and students.

More important than anything of this kind, however, is what happens on individual college and university campuses. This is where the proper balance of participation has to be worked out on an institution by institution basis. General guidelines and common basic patterns of participation may be helpful, but ultimately this delicate network of relationships must be developed and maintained at individual institutions by the good will and sustained effort of all three groups—administrators, faculty, and students.



## To What Extent Can Administration Involve Faculty and Student Participation and Still Be Efficient?

**Harry H. Lunn, Jr.**

*Formerly President, United States National Student Association*

**I**T IS OBVIOUS THAT the growing complexity of demands on higher education in the United States has reflected itself in a more complicated and sophisticated policy-making process than obtained even 20 or 30 years ago when many institutions were governed by a series of faculty committees with the over-all policy guidance of a board of trustees and the support of a relatively small administrative staff. In such an institution the president and deans often were from the faculty (sometimes, in effect, on *loan*) and, given normal relations, had the confidence of the faculty with whom they worked closely on matters of policy. In that less complicated world the faculty could be close not only to curriculum and admissions policy but also to decisions on the physical development of the university, student regulations, personnel policy and so on. The faculty, in short, felt a direct policy responsibility in determining the character and standards of the institution.

If the faculty today feels less of this responsibility and participates less in detailed policy formulation, presumably it is because the demands of higher enrollment and of keeping abreast of fast-growing fields of academic knowledge allow less time for policy responsibility and not because the faculty has no right or capacity to shape the character of the institution through development of its policy. The problem, then, is not to debate whether the faculty has anything to contribute that justifies the time involved, but to discover ways in which the rich faculty experience can most effectively influence policy in the midst of competing responsibilities for teaching and research.

Before commenting on this problem, it would be well to consider the student role in policy making. While students have at times occupied commanding positions in the determination of university policy, the examples of medieval universities and of Latin American universities today being particularly relevant, it has only been within the last decades in the United States that the student contribution to policy making has been most forcefully and systematically asserted. The proposition that student leadership can make a positive contribution to the university policy has been argued by students, faculty and administration alike. From the student side it arises from a conviction that students have a

responsibility for their own education and are in a position, particularly in their final years in the university, to comment intelligently on the education given them. There is a parallel view that student participation in college administration is valuable for the students themselves in training in democratic practices and leadership. While this is probably valid it would not, in my view, justify the time and effort involved were not the possibility of substantive policy contribution present. As I noted in a study for the American Council on Education which considers the potentialities of student participation in some detail:

The conviction with which this report is presented is that the substantive contribution of students to policy decision-making can be a vital one and that this contribution must be accepted if the full resources of student leadership are to be used effectively in the solution of pressing educational problems. This position does not ignore the importance of the more generally accepted argument of training for democracy—the two goals are closely interrelated. Indeed the thesis could be framed in this manner: If institutional administration is so conceived as to allow students to participate on as wide a basis as possible in policy formulation and their unique substantive contribution is solicited and realized, then the objectives of training for citizenship and inspiring the campus to respect democratic procedure will be satisfied automatically. Conversely, if student participation is generated solely to create a *model democratic community* and the student contribution is viewed with paternalistic detachment, the training will not necessarily have influences for good citizenship for the individual or the campus, for the student will recognize that his contribution is lightly regarded—that he is playing a game rather than engaging in substantive activity.

Perhaps I have taken too much time to discuss the value of the faculty and student potential contribution to policy making. Certainly the possibility of such contribution is generally accepted, even in the student case. Yet unless one deals affirmatively with the question of whether faculty and student participation in administrative matters are compatible with the purposes of higher education one cannot go on to say that a greater effort should be made in our universities to ensure that faculty and student leadership are given policy responsibility.

In considering the mechanics of policy responsibility there is a need to strengthen both formal and informal channels of influence, particularly on the student side. While it is true that most of our faculties have relatively well-organized committee structures which deal with matters of curriculum, standards, academic regulations, and similar areas, student consideration of many of these areas is less well formalized. This is not because structures for student representation do not exist; most campuses have some form of student government. The problem is that most student governments are engaged in activities peripheral to the central educational process rather than coming to grips with problems such as curriculum and academic standards that directly affect the students' education. One of the major program objectives of the U. S. National

Student Association is the development of such substantive activities by student governments and a substantial grant has been received from the Fund for the Advancement of Education to this end.

Informal channels of policy influence depend greatly on a willingness of higher authorities to draw on the experience and interest of individual faculty members and student leaders for assistance on any given problem. A challenging student discipline situation, a suggested curriculum change, a revision in admissions practices are examples of projects on which informal consultation might effectively precede discussion of formal proposals. Admittedly this requires some skill in administrative relations so that informal consultation does not become an obvious substitute for existing faculty or student government structures.

Having commented on the rationale for, and mechanics of, faculty and student participation in the policy-making in the university, I would like to mention in conclusion four areas in which I feel both faculty and student leadership, but particularly the students, should take a more aggressive role, since any case for their policy participation should include a citation of areas in which a worthwhile contribution can be made:

1. *Strengthening the curriculum.* In discussions with student leaders all over the country I have been impressed with the degree to which many students feel they should be undertaking a heavier academic program than they are. This means not only more courses but also courses with greater content.
  2. *Raising standards of performance.* Related to the belief that curriculum content is not as strong as it should be is the feeling that most students are not even working up to capacity in fulfilling the minimal work required of them. Greater motivation and discipline is needed by altogether too many students in this country.
  3. *Making extracurricular activity more substantive.* Too many students involved in campus organizations use them as an escape from the educational responsibilities they should be assuming. Few can argue that the experience of working on a large student newspaper or organizing a major lecture series are not effective complements to the formal classroom experience. Exclusive extracurricular concentration on organizing student dances and pep-rallies, however, cannot be considered effective education and unfortunately such activity is all too often a major extracurricular concentration.
  4. *Improving the educational climate within residence halls.* College dormitories and fraternity and sorority houses could be major intellectual centers on the campus. Unfortunately, they often are the opposite and develop attitudes among their residents hardly conducive to educational growth.
- Undoubtedly these four problems have received attention lately on most American campuses in light of the self-appraisal we all have been making of the adequacy of our educational resources. I suggest them here as areas of particular value for faculty and student study because

each will be solved in local situations when both the faculty and students feel their solution is important. An upsurge in academic standards may come at faculty initiative but without a widespread student concern for higher standards may prove a transitory gain. Similarly, student leaders may well recognize the superficiality of the extracurricular programs they plan, but without prodding from thoughtful faculty members may not take the steps necessary to place such programs on an educational footing.

In short, any analysis of our universities today which sees their policy shaped by an administrative class out of touch with faculty and student leadership is missing the point. The massive effort higher education in this country must make to overcome its present limitations requires a strong sense of faculty and student responsibility for the academic excellence of the institutions and an opportunity for this responsibility to be exercised through formal and informal policy councils at a number of levels within the institution. It becomes more profitable, therefore, for individual institutions to discuss how best this contribution can be made rather than whether it is worth the effort to solicit it at all.

### ***Faculty-Student Participation in Administration***

**William J. McKeefery, RECORDER**

*Vice President, Washburn University of Topeka*

THE DEGREE OF PARTICIPATION of faculty and students in college administration is closely related to the particular climate and traditions of the individual institution. It also depends on such practical matters as institutional size, organizational structure, and personalities. Wide variations in involvement occur, with more examples of under-participation than over-participation.

Faculty and student participation adds materially to the clarity, wisdom, and acceptance of administrative decisions. Examples exist of participation between levels as far apart as governing boards and students, and even presidents and clerical staffs. Range and intimacy seem to be limited only by time and interest. If faculty and students share in the selection and appointment of faculty members, the appointees will find it consistent to continue such participation.

Enjoyable participation is most frequently found when action can be the end result of participation. It is wise to begin with simpler issues where action and fulfillment readily follow. Administration can do its

distinctive job most effectively when faculty and students freely participate in policy formation.

NOTE: Chairman of Group 14, Section 1, was HARVEY H. DAVIS, Provost, State University of Iowa.

### ***Faculty-Student Participation in Administration***

**Sister M. Cecilia Bush, RECORDER**

*Academic Dean, St. Mary of the Plains College*

THE ROLES OF governing boards, administrators, faculties, and students in formulating administrative policy are not mutually exclusive. In most cases, representation of all these groups is highly desirable. Moreover, the danger of a threat to the primary functions of teaching and study resulting from active faculty-student participation in administration is unlikely. Such participation actually aids in fulfilling the objectives of higher education.

Involving faculty and students in administration requires some formalized structure, since informal means tend to function only temporarily. Such an organized structure should have carefully formulated ground rules determining the purposes, limits, and authority of respective participating groups. Clear delineation of functions at the inception of this program obviates the possibility of subsequent unreasonable controls and pressures.

Opportunity for making administrative decisions should be provided for faculty and students insofar as they are ready and willing to accept the attendant responsibility for such decisions.

NOTE: Chairman of Group 14, Section 2, was RONALD B. THOMPSON, Executive Dean, Special Services, The Ohio State University.

## **Faculty-Student Participation in Administration**

**Otis A. Singletary, RECORDER**

*Dean, College of Arts and Sciences, The University of Texas*

FACULTY PARTICIPATION is useful in such areas as the formulation of educational policy, the selection, appointment and granting of tenure to personnel and in the allocation of funds in some cases. Student participation is desirable in such areas as curriculum revision, setting standards for student academic performance, aiding in the formulation of disciplinary regulations, evaluating teacher performance, and helping to focus extracurricular activities more along educational lines.

In many institutions some degree of faculty and student participation in administration has already been inaugurated. The areas of faculty participation are usually defined with clarity, but it is generally felt in the case of students that their participation might on any given occasion prove useful, though not always so.

NOTE: Chairman of Group 14, Section 3, was SISTER M. AUGUSTINE, O.S.F., President, Alverno College.

## **Faculty-Student Participation in Administration**

**Kate Hevner Mueller, RECORDER**

*Professor of Education, Indiana University*

FACULTY MEMBERS or students may be involved in administration as advisors, consultants, or as genuine voting policy makers. Their functions will be different on every campus, but the areas and terms of any delegation of authority must be made clear at the outset. It is wise to begin in a small and tentative way and grow in the direction which interest and talent indicate.

If the participation serves only to teach students the democratic method, if it is used only to enlist support for inevitable policy changes (e.g., larger classes, higher charges), or if it seeks to sample opinion or to create better public relations, there are probably more efficient methods of achieving the same results. One test is to determine whether students or faculty can contribute something to decision-making which would otherwise be missed, or whether the aid can better be solicited by a more informal method.

NOTE: Chairman of Group 14, Section 4, was PHILIP A. HOFFMAN, Vice President and Dean of Faculties, University of Houston.

### *Faculty-Student Participation in Administration*

**Helen Fisk, RECORDER**

*Executive Director, Western Personnel Institute, Pasadena, California*

IT IS THE PRIVILEGE of participation in administration which faculty members seek and value. Responsible participation by the faculty depends on knowing that their opinions will be given serious consideration. Feasible plans for representation of the faculty in helping to shape college and university aims, goals and policies need to be worked out.

Comparatively few institutions have students as members of their more important committees. Students, also, will act responsibly on committees only if they know that their opinions are taken into account. This does not mean that their recommendations must be accepted or that they have a determining role. Each college must decide for itself how mature its students are and how far they can be trusted. Where student government is regularly concerned with such questions as orientation, need for honors program, and so on, student representatives will be more useful on major committees.

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NOTE: Chairman of Group 14, Section 5, was RALPH PRATOR, President, San Fernando Valley State College.



## To What Extent Should the College Become More Closely Related to Local Community Life?

**Maurice F. Seay**

*Director, Division of Education*

*W. K. Kellogg Foundation, Battle Creek, Michigan*

**A** COLLEGE SHOULD BE related to its local community to the extent that the institution's educational objectives are served. Almost any observer of higher education could agree with such a statement. Differences of opinion begin to appear, however, when we ask, "What kinds of relationships best serve educational objectives?" and "To what extent do utilitarian values justify close town and gown cooperation?"

Educational objectives differ widely, of course, among the various institutions of higher education. A community college may be designed to serve a local community with terminal curriculums planned to meet the specific need of that community. On the other hand, a four-year liberal arts college may serve a national clientele with general education and pre-professional curriculums, while a university acknowledges a three-fold function of instruction, research, and field services. Each institution will approach the question of community relationships from the standpoint of its own purpose and clientele.

And the dividing line between the so-called utilitarian values and educational values frequently becomes blurred. My observations, however, lead me to believe that many current efforts to relate colleges to their local communities are motivated by reasons which the faculty members and administrative officers would not classify as primarily educational. As a local community deteriorates, the college or university faces serious problems—problems of student and faculty housing, problems of police and fire protection, problems of schooling and welfare, problems of race and social classes. Some of our major colleges and universities are now fighting the battle of community restoration—and some acknowledge that this need could have been avoided if the institutions had not isolated themselves from their communities throughout the years. Public relations programs with the primary aim of greater financial support or of favorable legislative action bring some colleges close to their local communities and cause some universities to declare that "the state is our campus." Yet failure to halt community deterioration or failure to provide the necessary financial support can seriously hamper the achievement of educational objectives.

I would like to present a hypothesis for consideration: that a college or university facilitates its educational program by a close relationship with its community—a relationship which involves the use of many community resources in the educative process—and this type of relationship becomes an effective base upon which to build public relations and by which community deterioration can be avoided.

The gown and town problem, of course, is as old as higher education itself, but today the problem is being analyzed from some new angles. Baker Brownell pulled no punches when he said:

Behind these three principles of educational decay—namely, the postponed function, the social vacuum, and the divorce from practice—is the basic failure which these in their respective ways express. That failure is the inability of the college to identify itself with a true community. In consequence it promotes a mobile, rootless life, an urban indifferentism of mentality, a sterile, gay, and as it were, irresponsible biology. It promotes a kind of human life that is what it is largely because it is a life without community, a half life, an aggregation of specialized fragments of life, that has neither spiritual significance nor integrity.

The removal of higher education from the community is deadly. The decay of the community, on the one hand, and the withdrawal of education into abstract modes and patterns of its own, on the other, create a division between higher education and the community.<sup>1</sup>

With his vigorous criticisms of higher education, Brownell offers some advice and encouragement:

Until the college returns to the community and identifies educational experience intellectually and spiritually with the community life, the disintegrative tendencies of higher education will probably continue.

I have described briefly how some of the more progressive universities are bringing about this identification of the culture of the college with that of the community. It is an integrative process of which they may not be aware, but the change goes on. Unquestionably the communities can be served in many ways by the college. But many persons interested in college education are not yet aware that the college is critically in need of the community and can be served both intellectually and spiritually by it. The integration of educational experience in the college depends on it.<sup>2</sup>

Ordway Tead, in the first of the John Dewey Society Lectureship Series delivered in February of 1958, emphasizes the role of the community in the educative process:

There is a splendid opportunity in most institutions to offer helpful, needed community services in which students under supervision are encouraged to volunteer their share to the advantage of the local agencies and with important learning opportunities for the students.

<sup>1</sup> Brownell, Baker. *The College and the Community*. New York: Harper & Brothers, 1952. p. 38-39.

<sup>2</sup> *Ibid.*, p. 202.

Since the study-work alternation programs (of which the University of Cincinnati is one of the oldest examples) are not likely to be put into early effect in all colleges, this community service program can go an appreciable way in getting students exposed to the local life and institutions in a realistic manner. They may thus minimize the town-gown separation, and fertilize by virtue of concrete contacts the more abstract learning experiences of the classroom.<sup>3</sup>

As Ordway Tead would "fertilize by virtue of concrete contacts the more abstract learning experiences," I would use community resources to enrich the educative process.

A few well-known procedures will illustrate this relationship to the local community: various plans of combining work experiences with study, the use of community agencies as laboratories for the various disciplines, the participation of students in community activities as an essential part of training for leadership in volunteer organizations. More important than any of these planned procedures, however, may be the intangible educative influence of human beings reacting to other human beings in a normal community situation. In this type of community living there is an integration of human values—a development of social responsibilities as well as of individual skills—in contrast to the segmented, anonymous way of life so characteristic of our large concentrations of population today.

In the current scene we have interesting paradoxes. The teacher is told that he should give great emphasis to content and then the same voice warns him that content very quickly becomes obsolete; and because of this fact, he is told that more emphasis should be placed upon skills of learning which will enable the learner to secure new content as he needs it in his professional or business career. The teacher is told that the international situation makes the national interest in education paramount, and at the same time the teacher is warned that concentration of power over education and uniformity in education are antagonistic to the democratic way of life.

As I re-examine the hypothesis which I have presented, I am still of the opinion that a close relationship with its community is desirable for any institution of higher education—educational objectives are more effectively achieved. I admit, however, that this hypothesis should be tested by each individual institution and I'm sure that as a result of this testing the extent of community relationships would vary greatly.

<sup>3</sup> Tead, Ordway. *The Climate of Learning*. New York: Harper & Brothers, 1958. p. 50.

## College-Community Relations

**David W. Mullins, RECORDER**

*Executive Vice President, The Alabama Polytechnic Institute*

EACH INSTITUTION HAS A responsibility to the local community. Institutions in general have not given enough conscious attention to ways in which they can and should relate themselves to the community.

The college and community program should be developed in terms of the institution's educational objectives. A sound and carefully developed program of relationships between the college and the local community will facilitate the institution's educational program. Each institution and community must build its program of relationships in terms of its own local situation. Such programs should be truly educational and should serve the educational interests of the students. Institutions should avoid attempting to do things which might more properly be done by other community institutions or agencies.

There is no conflict between an institution's meeting its responsibility in serving the national interest and a program relating itself closely to the local community. Rather the two may very well complement each other.

The source of support and nature of the administrative controls may affect the freedom and effectiveness with which an institution may relate itself to the local community. If major support is derived from certain groups in society, these may exercise serious restrictive influences on the institution's efforts to serve the local community. Likewise, if the board of control is distant from the institution geographically, there may be less concern for the local community.

Fear or unwillingness of faculty members to express themselves with respect to questions and issues which may prove controversial often is a serious deterrent in a college community program. The rapidly changing nature of communities in present-day society imposes an increasingly heavy responsibility on colleges to assist in meeting local community problems.



**What Fundamental Changes Are  
Foreshadowed in the Prevailing Patterns  
of Educational Organization and  
Methods of Instruction by the  
Revolution in Electronics?**

**Marshall McLuhan**

*Professor of English and Co-editor, Explorations  
St. Michael's College, University of Toronto*

**T**ODAY IN THE POST-MECHANICAL age we are in the same position as horse-minded people when confronted with the automobile. To horse-minded people the most striking fact about the car is that it is a *horseless carriage*. In the same way radio appeared as *wireless* to those who had become accustomed to the miracle of the telegraph. *Automation* to machine-minded people strikes fear as being an extreme form of mechanization; but as Peter Drucker says in his *Landmarks of Tomorrow*, automation "is merely a particularly ugly word to describe a new view of the process of physical production as a configuration and true entity."

So rapidly have we begun to feel the effects of the electronic revolution in presenting us with new configurations that all of us today are displaced persons living in a world that has little to do with the one in which we grew up. Most of us can recall the days when children pushed hoops along sidewalks and roads. There are more hoops than ever now. But no child will push one. For children today live in a space whose configurations are not those of 30 years ago. Instead of being attracted by an outer space designed in lineal fashion, children now nucleate their own space, ballet style. Living, for example, with electronic imagery in which the image is formed by light *through* rather than light *on* (one major difference between TV and film), children respond with new sensory configurations and new attitudes to their world.

Educators naturally feel that their job is to maintain the educational establishment and to preserve and advance the values so long associated with its procedures.

Right now this means, for example, that we are going to insist that Johnny acquire the art of reading, if only because print is the matrix of Western industrial method in production, and print teaches consumer habits and outlook, as well. Print teaches the habit of sequential analysis and of fragmentation of all motion into static units. Print teaches habits of privacy and self-reliance and initiative. It provides a massive visual panorama of the resources of our mother tongue which pre-

literate peoples know only by ear. In fact, print is not only access to our culture and technology, it is our culture and technology. That is why in the electronic age we are threatened by new fast-moving and flexible media—while we sit in a Maginot Line convinced of the importance of our position.

Of course Johnny must read. He must follow the lines of print. He must roll that hoop down the walk. He must roll his eyes in lineal, sequential fashion. We have only to proceed to engraft the old right-handedness on his new left-handedness in order to win our point. But in the meantime we shall have lost his attention, and he may be subdued but he will be utterly confused.

Taken in the long run, the medium is the message. So that when, by group action, a society evolves a new medium like print or telegraph or photo or radio, it has earned the right to express a new message. And when we tell the young that this new message is a threat to the old message or medium, we are telling them that all we are striving to do in our united social and technical lives is destructive of all that they hold dear. The young can only conclude that we are not serious. And this is the meaning of their decline of attention. In Russia, where print is still a novelty, and one extremely needful to the achievement of the producer and consumer patterns that we achieved centuries ago, the problem of attention and motivation scarcely exists.

I have said that the medium is the message in the long run. It would be easy to explain and confirm this point historically. Print simply wiped out the main modes of oral education that had been devised in the Greco-Roman world and transmitted with the phonetic alphabet and the manuscript throughout the medieval period. And it ended that 2500-year pattern in a few decades. Today the monarchy of print has ended and an oligarchy of new media has usurped most of the power of that 500-year-old monarchy. Each member of that oligarchy possesses as much power and message as print itself. I think that if we are to have a constitutional order and balance among these new oligarchs we shall have to study their configurations, their psycho-dynamics and their long-term messages. To treat them as humble servants (audio-visual aids) of our established conventions would be as fatal as to use an x-ray unit as a space-heater. The Western world has made this kind of mistake before. But now with the collapse of the "East," that is, with its recognition that no viable society can be built anywhere except on Western modes, it would be a very bad time to allow our own new media to liquidate the older media. The message and form of electronic information pattern is the simultaneous. What is indicated for our time, then, is not succession of media and educational procedures, like a series of boxing champions, but coexistence based on awareness of the inherent powers and messages of each of these unique configurations.

In his book on *Film as Art*, Rudolph Arnheim, the psychologist, wrote: "The history of human ingenuity shows that almost every innovation

goes through a preliminary phase in which the solution is obtained by the old method, modified or amplified by some new feature."<sup>1</sup>

In the past 30 years all of our traditional disciplines in the arts and sciences have moved from the pattern of lineal cause to configuration. Nowhere is this more true than in biology. Yet the methods used to reach configuration are still the old Cartesian methods of classical mechanics applied to the study of living organism. And configuration concepts such as *stress* or *metabolism ecology* and *syndrome* are essentially esthetic terms.

As we move into the world of the simultaneous out of the era of mechanism and of the lineal succession types of analysis, we not only move into the world of the artist but we see the disappearance of the old oppositions between art and nature, business and culture, school and society. It really doesn't matter to which phase of our culture today we turn. The habit of simultaneous vision of all phases of process is what characterizes the articulate awareness in the field.

Thus, in the movement of information today by technological means we have by far the largest industry. American Telephone and Telegraph alone greatly exceeds the capitalization of General Motors. The production and consumption of information, that is, is the main business of our time. Culture has taken over commerce. Within industry itself the growth of the classroom for workers and for management receives a budget at least three times the \$16 billion budget of formal education in North America. And for research, also, the trend and ratios are similar.

The movement of information round-the-clock and round-the-globe is now a matter of instantaneous configuration. Decision-making in business and in education as much as in diplomacy is now a matter of grasping these configurations. They have a language and a syntax of their own as much as does the iconology of pictorial advertisement. So that it is not only the business of education today to teach these new languages but to teach how we can in our previously achieved configurations of culture be enriched by these new powers and not merely dissolved by them. There is a classic definition of science originating in the Academie Francaise after the death of Descartes: "The certain and evident knowledge of things by their causes." Survival indicates that we grasp by anticipation the inherent *causes* and not the effects of the electronic media in all their cultural configurations and make a fully conscious choice of strategy in education accordingly.

The eminent French anthropologist, Claude Levi-Strauss, in an analysis of "The Structural Study of Myth," (*Journal of American Folklore*, Oct.-Dec., 1955), presents us with a typical configurational insight: ". . . we define myth as consisting of all its versions . . . therefore, not only Sophocles, but Freud himself, should be included among the recorded

<sup>1</sup> Arnheim, Rudolph. *Film as Art*. Berkeley: University of California Press, 1957.

versions of the Oedipus myth on a par with earlier or seemingly more 'authentic' versions."

Applied to the study of media in education, the Levi-Strauss insight, which is characteristic of the approaches of the arts and sciences in our time, means that we have to regard our media as mythic structures, as massive codifications of group experience and social realities. And just as print profoundly altered the structure of the phonetic alphabet and repatterned the educational processes of the Western world, so did the telegraph reshape print, as did the movie and radio and television. These structural changes in media myth coexist in an ever-live model of the learning and teaching process. The changing configurations of this massive structure inevitably alter the bias of sight, sound, and sense in each one of us, predisposing us now to one pattern of preference, and now to another. Today, *via* electronic means, the coexistence of cultures and of all phases of process in media development offers to mankind, for the first time, a means of liberation from the sensory enslavement of particular media in specialized phases of their development.

What Harold Innis well called *The Bias of Communication* concerned not only the forms in which men have chosen to codify information but the causal effects of stone, papyrus, and print on the changing structures of decision-making.

Mr. Parkinson has recently entertained us with an analysis of bureaucratic decision-making as it exists in the written mode of the memorandum syndrome. The written forms of information movement begin to look quaint after a few decades of electronic information pattern. At present the co-pilots of Canadian jet fighters have to make decisions in quite another configuration; namely, that of the instantaneous. Before being assigned to their common task, they undergo a long phase of what is called *going steady*. When finally assigned to their plane they are publicly *married* by the commanding officer in a sober ceremony. Today, it is felt, only *marriage* can connote the degree of togetherness, tolerance, sympathy, etc., necessary for decision-making in the use of new technology. This new pattern is the subliminal but overwhelming *message* of the media since the telegraph. Yet nowhere in our educational establishment have we made provision for the study of these profound messages which impose their configurations on the sensory equipment of children from their first days of existence. Yet some such provision would seem to be indicated against the persistent effects of media fall-out, at it were.

One effect of the commercial movement of information in many media is that today we live in classrooms without walls. The printed book created the classroom as we know it by making available exactly repeatable information. Even if the manuscript or handmade book had been cheap enough for all, it could never have been uniform or repeatable. Moreover, the best manuscripts are slow to read and create a totally different feeling for language in the student—a feeling for the multiple

layers of meaning. Such a feeling has returned today, especially since television, with its light *through*, rather than light *on* the image. In a word, the printed page was no more a cheaper manuscript than the motorcar was a horseless carriage. And the repeatable character of print had consequences in science and industry which we are still working out.

But all previous configurations, including that of print from movable type, undergo a sort of alchemical change when they meet a heavy new stress or pull from a new type of configuration.

I have called the electronic age, which began with the telegraph, the post-mechanical age. For now that which moves in our new structures is no longer wheels and shafts (except incidentally) but light itself. We can now see in depth, as it were, the shape of the Gutenberg myth and technology. Our knowledge of the causal operation of the Gutenberg configuration might now save the Indians and the Chinese a great deal of needless liquidation of many elements of their cultures which we have come to value in the West. But even more urgently we need prescience of the full causal powers latent in our new media in order that we may do for our own print-culture what we could also do to save Chinese ideogrammic calligraphy and education. A kind of alchemical fore-knowledge of all the future effects of any new medium is possible. Under electronic conditions, when all effects are accelerated in their mutual collision and emergence, such anticipation of consequence is basic need, as well as new possibility.

For example, our present concern about closed-circuit television in education is parallel to the sixteenth century concern about whether print and the vernaculars could do a serious educational job. It is actually asking whether the car can ever supplant the horse. We are losing precious time in such static retrospection.

Let me mention one central feature of the electronic configuration; namely, its strong tendency to reverse producer-consumer relationships. Print over the centuries had stabilized a pattern of producer-consumer relations. But with the telegraph a century ago the reader of the press had to assume an editorial function unknown to the reader of the pre-telegraph press.

When news moves slowly the paper has time to provide perspectives, background, and interrelations for the news, and the reader is given a consumer package. When the news comes at high speed there is no possibility of such literary processing, and the reader is given a do-it-yourself kit. This telegraph pattern was soon transferred to poetry, painting, and music, to the bewilderment of consumer-oriented people. When John Dewey attempted to transfer the same electronic or do-it-yourself pattern to in-school education, he failed. He had not analyzed the situation adequately nor had he any glimpse of the media factors operative on his own enterprise. But had he merely turned the do-it-yourself bias towards the training of the young in the perception and judgment of the out-of-school media, he would have succeeded, and we

would all of us be in a much stronger position educationally today. Because that is precisely the task we must now tackle—the training of the young in mastery of the new global media.

Most of the space in this paper has gone to pointing out the mere nature of the technological causes which, past and present, produce change in educational patterns. These causes are mainly subliminal and non-verbal. And may it not be that the new importance that is now accorded to the arts, both in education and in industry, is owing to our awakened sense of the role of art and artists in raising subliminal and non-verbal factors of experience to the level of conscious articulation?

In a simultaneous information structure such as the electronic global community we cannot afford subliminal factors since their operation is haphazard. The simultaneous compels us to make a social order that, like a poem or painting, is totally realized in its interrelations, and in which each factor has total relevance.

To record briefly some basic educational changes which are now discernible and may well foreshadow major lines of development, let me suggest the following:

We have, in the age of literacy, educated more and more members of society. In the electronic age we shall educate more of each person. We now move from educational extension to even greater extension, but in *depth*, as well.

Is not this the drift of our new concern with the gifted child?

The meaning of the New Criticism today is not just literacy but a shift to reading in depth with total awareness rather than the single plane approach of the older literacy.

As we extend our educational operation by television and video tape we shall find that the teacher is no longer the source of data but of insight. More and more teachers will be needed for the type of depth instruction that goes naturally with television, with light *through*, rather than light *on*.

The need for more and more profound teachers because of the very medium of television, is shadowed in the panel show, at least to the extent that it seems more natural, even since radio, than a single source of comment and information. Two or more teachers in dialogue with each other and with class or audience, create exactly that sense of light *through* rather than light *on*, which is the nature of television image or mosaic, as compared with movie or print. In the same way, with the panel, the voice comes, as it were, through the audience, rather than to the audience.

In the same way that industry now makes the consumer the producer by means of motivation research, do not educators now recognize the education problems to be motivation, rather than consumption, of packaged information? The fully motivated student is creative in his consumption and cognition. He is coauthor and co-producer, so that the new teaching must increasingly cast the student in co-teacher roles. And, indeed, he is already potentially in such a position because of his vast

intake of information in out-of-classroom experience, which is only in part shared by the teacher.

Increasingly the business of education will be discovery and interrelation. And just as industrial production now depends entirely on higher education, and as culture has become the main business of the globe, so learning and not teaching may well become the most highly paid profession. As we begin to learn for participation, rather than for specialist, applied knowledge patterns of action, we can look back and see how the growing habit of conferences already forecasts this change in the roles of teacher and learner. Applied knowledge for production is now taken for granted and knowledge shifts to the global role of community and participation in a way commensurate with the roles of the new media.

### ***Revolutionary Effects of New Media***

**Maxwell H. Goldberg, RECORDER**

*Professor and Head, Department of English, University of Massachusetts*

WE ARE ALREADY well advanced into the Electronic Age, and the implications of electronic instrumentation for education are radical and far-reaching. They have a great potential for cultural good and cultural ill.

A chief differentiating feature of the Electronic Age is the shift from education in a linear, primarily visual, and static or sequential mode to education in a mode characterized by simultaneous and multi-dimensional awareness of temporary configurations (telegraphic mosaics) of relations in a field of auditory space which itself is in continuous change. This mode has far-reaching effects upon those who experience it, in that it imposes its own assumptions (subliminal) upon the sensorium of the recipient—and this is all the more effective *because* most of the effects are not conscious.

Education, then, should maintain the desirable aspects of the *linear modes*; exploit the new modes, and encourage creation of fresh, living models for culturally beneficent changes.

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NOTE: Chairman of Group 16 was DONALD J. LLOYD, Associate Professor of English, Wayne State University; resource person was ROY HARVEY PEARCE, Professor of English, The Ohio State University.



## How Can a Favorable Campus Climate of Opinion Be Created in Which Major Curricular Changes Are Acceptable?

John Ball

*Professor of English, Miami University*

**I**N THIS ARTICLE I would like to make four main points about change, two main points about climates of opinion, and finally a point about the curricular proposal itself as it affects its own acceptability.

First, change is process, and like any process, it involves complex action and interaction. In any human situation, the forces operating to cause change and the forces operating as barriers to change act on themselves and on each other in such a way that the energy bringing about change is not applied in a straightforward pull or push but at oblique angles. An understanding of change as process avoids the danger of oversimplification and produces an understanding of the time dimension in change.

Second, change is relative. Actual change is relative and apparent change is relative. Apparent change may be sweeping and spectacular; it may seem to move in great leaps and to form a discontinuous pattern of development. Actual change, on the other hand, is a continuous process, and in human situations a comparatively slow process. In *Human Nature and Conduct* John Dewey makes the point:

Actual social change is never so great as is apparent change. Ways of belief, of expectation, or judgment . . . are not easily modified after they have once taken shape. . . . Institutions may be altered, even abolished; but the bulk of popular thought which has been shaped to their pattern persists. . . . When general and enduring moral changes do accompany an external revolution it is because appropriate habits of thought have previously been insensibly matured.<sup>1</sup>

Thus it is necessary that recognition and evaluation of change and identification of factors important to the initiation of acceptance of change avoid the misleading evidence of superficial or apparent change. Change is also relative in quality: from different points of view it may at the same time seem to be growth, and decay; regress, and progress; developmental action, or destructive action.

<sup>1</sup> Dewey, John. *Human Nature and Conduct*. New York: Modern Library, 1930.

Third, change is inevitable. Just as there can be only relative change, there can be only relative permanence. In any living organism, there must be change to serve as a basis for relative permanence: cell damage is repaired, energy sources are converted into energy—a whole dynamic of negative entropy is required for the continuation of life. And so it is with human institutions: each is a process of human interaction, and process incorporates change as a necessary condition of existence. *Status quo* is an idea rather than an actuality, and cannot exist in real life.

Fourth, change is influenced by intrinsic and extrinsic forces. The force shaping change from within is the dynamic of change, contributing to further change. When a snowball rolls down a hill the very fact of its motion and its weight causes its growth in size and its increase in momentum. The direction that it has already gone helps shape the direction that it is going, and at any point in its travel its immediate future path, and to some extent its ultimate destination, can be largely predicted on the basis of its previous and present direction. So it is with change. Once begun, moment by moment it shapes the quality, the quantity, and the rate of development of its next stages and its ultimate end. How may this point be applied? No institutional change need start from scratch; rather it can identify and utilize the force in the dynamic of existing change. It can use the channels of change already in existence, and where the channel swings wide to avoid a rock it may expeditely swing wide also. It will find where the dynamic is and use that dynamic.

Now we shall look at the extrinsic forces influencing change. Change operates in a world of divergent and often conflicting values, expectations, and habit patterns. Each person in a human situation has his own ideas of what is important, his own idea of his stake in the situation, his own image of the past and present structure of the situation and of the expected structure of the situation when the change in process has been effected. His own patterns of habit and thought shape and limit his participation in the total process of change.

We may look at some of the words we have for change, as they reflect the value structure of our civilization and thus help us understand some of the forces at work contributing to or denying change in a human situation in that civilization. Most words for the relative absence of change have a positive value: permanence. Preservation. Integrity. Survival. Stability. These words for change reflect value judgments: growth. Addition. Progress. Exploitation. Decay. Loss. Regress. Revival. Renaissance. And there are the adjectives: radical. Reactionary. These values may be barriers or aids to change: a man may seek to live up to his image of himself as liberal, or as conservative.

The difference between a man's image of the present situation and his image of the hoped-for situation may be one of the strongest incentives to change. If there is no distance between what is and what is expected or hoped for, then there is no creative tension motivating the expenditure of effort to achieve change. If there is too much distance between the

present and the hoped-for, it may not seem worthwhile even to try. This principle is basic to the learning process as well as to the individual's allocation of effort to contribute to change. The learner, or the participant in change, must see his own stake in his expenditure of effort: he must have an image of the expected result as far enough from but not too far from the present situation to be both highly worth achievement and clearly possible of achievement.

People often serve as extrinsic barriers to change, especially those whose values seem threatened by the change, those who cannot find their own stake in the change, those whose patterns of habit would need to be considerably altered as a result of the change, those whose image of themselves and of their relationship to the present situation are already ego fulfilling (I believe smug complacency is the term we usually toss at these people), those whose image of the degree of change necessary leads them to feel on the basis of their experience and their own evaluation of their own abilities that the change is not feasible, those who react against one of the persons proposing change or against some other association that they make with the proposed change, and all those who are afraid of everything even partly unknown.

Next, two points about climates of opinion. A favorable climate of opinion carries over from one situation to another: in a college or in an human institution when the favorable climate of opinion already exists, there is already a favorable climate of opinion for change. A fully favorable general climate of opinion based on continuing experience and personal loyalty is of incalculable worth to any social organization. There can be no substitute for such a foundation for further development.

Second, a climate of opinion is shaped by involvement. People need to be brought together to study the present situation, to analyze the needs, to plan the program of change. The more people there are on the inside the better the chance of change. But involvement takes time. People do not find their stake in situations at once. Sometimes through interaction conflicting values are merged through group rapport. An apparently hopeless gap between the present situation and the hoped-for situation may after two or three committee meetings shrink to manageable size. Also, involvement contributes energy from each individual to the developing dynamic of the change that is taking place. I mentioned that the more people there are on the inside the better the chance of change: I would prefer to have involvement carried so far that there is no longer an inside—or an outside. With patience, and with a willingness at times to disregard the most economical and efficient use of time, a whole campus can be brought into the several stages of evaluating need, planning the curricular change, and making a joint announcement that makes clear the broad basis of the proposal.

Finally, I have a brief note on the curricular proposal itself. It of course bears a share of the responsibility for its own acceptance. There may well be some curricular proposals that should never result in change. The curricular proposals I have been talking about, however, are built

with insight and imagination. The best thinking of the best teachers and academic administrators has gone into them, and they have been sharpened, not emasculated, in faculty and student discussions that were themselves intellectually stimulating and memorable.

### *Changing the Curriculum*

**Marcus C. Old, RECORDER**

*Dean of the Faculty, Hofstra College*

SUMMARIES OF STUDIES showing national trends developing in higher education, conferences with consultants and research organizations, alumni opinionnaires, or individual initiative, may lead to an introduction of major curricular changes. A favorable climate would find faculty, administrations and students cooperating to bring all possible ideas into the consideration of a change. At no time should a change be insinuated; it should be introduced gradually through numerous meetings for persuasion of a majority. Academicians, by participating in professional higher education meetings as well as scholar society meetings, are more apt to develop those attitudes and characteristics necessary for the improvement of teaching for liberating experiences through greater effectiveness of courses and curricula. Significant curricular changes are dependent on faculty and administration who together set their sights on improvements in the campus academic climate. Curricular distortions usually follow when an administrator or committee bypasses the opposition or fails to persuade a majority.

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NOTE: Chairman of Group 17 was W. FRANCIS ENGLISH, Dean, College of Arts and Science, University of Missouri.



## **What Are the Most Effective Methods of Improving Instruction, With Special Reference to Individual Student Work Programs?\***

**C. R. Carpenter**

*Director, Division of Academic Research and Services  
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**T**HE PYRAMID PLAN WAS initiated at Penn State in the Fall Semester of 1957. During the first academic year the experiment was conducted on a limited basis with students majoring in psychology, and expanded to other areas during 1958-1959.

This project was financed by the Fund for the Advancement of Education, which has a special interest in discovering and mobilizing new resources for teaching and learning. Probably most people will agree with the proposition that the greatest unused resources in our college and universities are the latent unmotivated potentials for learning of students themselves.

Like many other universities Penn State is large already. It has an enrollment of over 18,000 students. Its size is calculated to double by 1970. This seemingly inevitable growth imposes two related and inescapable problems: (1) developing resources and methods for educating larger and larger numbers of students, and (2) developing resources and methods for maintaining, or if possible, improving the academic quality of students.

Apparently we are compelled to learn to live with and manage bigness. This we can and will do. The problem is that of how to avoid the loss of essential educational values for students while at the same time living with and managing bigness. Further, how can we develop new and improved educational effects on students at the same time the problems of bigness are being solved?

### **The General Problem of Student Motivation**

Educators who seriously consider ways to increase the excellence or quality of the academic achievements of students are frequently emphasizing the basic necessity of increasing the relevant motivations of stu-

\*The actual title of this paper was "The Penn State Pyramid Plan: Interdependent Student Work Study Groupings for Increasing Motivation for Academic Development."

dents. This emphasis is often recommended on the basis of results which show non-significant differences among comparisons of many different methods and techniques employed with the expectation of improving instruction.

Many solutions now being proposed for improving education require increased numbers of faculty and increased investments of faculty time and energy for their implementation. Since meeting this requirement is impractical now, and will become more impractical in the future, solutions must be found by colleges and universities which make only reasonable demands on faculty resources and time.

Independent study by students is one often proposed solution. However, a study of independent study plans will show that they are more demanding on faculties and teaching resources than the standard conventional methods.

Increasingly, educators are suggesting that students be given more responsibility for their own learning. There are good arguments that this is desirable. The proposal, however, makes a dubious assumption; namely, that students *can* and *will* accept increased responsibility merely by being told to do so or even as a result of provided opportunities. The realities are that students who have been taught for long years in situations of dependency on teachers need to be especially motivated to accept responsibility for their own learning and they need to be taught how to accept and manage these responsibilities. The transition from dependency toward autonomous self-motivated study requires both favorable opportunities and effective retraining.

Therefore, to solve the problem, attention must be given to (1) the context in which students live and work, (2) the effective value systems which affect student behavior, (3) the reward systems of students, including subjective satisfactions, and (4) the cultural and academic *climates* and social norms of student groupings. All of these factors, and more, impinge on, and constitute parts of, the motivational and habit systems of students related to academic achievements. Therefore, increasing student motivation seemingly requires changes in individuals and also changes in the web of influences which affect learning. There is a need to know which elements of the web of influences favor and which oppose sound intellectual development.

It is proposed that instead of focusing attention and effort on promoting exclusively *independent* study, it may be useful to consider types of *interdependent* work and study. This proposition admits that students are social animals. An individual is in a sense an abstraction. Many of the most important factors in human motivation are derived from, and reinforced by, social-cultural interactions.

Perhaps we should re-examine not only new theories of perception and learning but also theories of group dynamics, theories of roles and statuses, theories of personality, theories of social interactions, theories of communications and theories of social climates. Perhaps we can de-

sign new educational experiments which will be more productive than many of those in the past.

The Pyramid Plan, the guided study and work of students in small groups, is one attempt at experimentation along the lines suggested above.

### **The Problem**

The problem is to increase motivation of students for and involvement in academic scholarship. The attempt is to provide for undergraduate college students favorable opportunities and training in guided inter-dependent work-and-study in small groups. Arrangements are made for encouraging the interactions of students which will increase motivation for scholastic effort, providing settings which will encourage students to define their roles and academic objectives, facilitating exchanges among students of information and viewpoints on academic and professional issues of importance to them. Briefly the problem was to encourage, guide and socially reinforce students' efforts in scholarship.

Furthermore, the limitation was imposed and accepted in the experiment to do these things with a minimum investment of faculty competencies, time and energy. A maximum of responsibility was to be given to undergraduate students themselves. Indeed, it was expected that students would learn and teach each other without direct faculty control.

### **Assumptions of the Pyramid Plan**

The experiment was based on several assumptions:

1. College students are capable of accepting a great deal more responsibility for their own academic work than they are usually given, provided favorable socialized opportunities are arranged and they are given limited but necessary training and guidance.
2. Students of varied academic statuses have great possibilities for learning from each other, for teaching each other, and for reciprocally reinforcing their own motivation for scholarship.
3. The personal definitions of roles, expectancies and academic objectives, when accomplished by students, favorably influence their motivation and scholarship.
4. In many areas of student learning, interests and concerns, direct faculty leadership or control is not necessary; in fact direct faculty influence may impede the rate of intellectual development and maturity.

### **Structure of Pyramid Groups**

At the apex is a full-time faculty person with special qualifications. The next level consists of several selected graduate student assistants.

The third level is made up of selected seniors. From here on down through the class levels the number of students is doubled: twice as many selected juniors as seniors, twice as many sophomores as juniors, and twice as many freshmen as sophomores. The structure can have varied numbers in different levels. The possibilities of expansion in numbers from the more advanced to the less advanced is the most important feature.

When the population arrangement is adapted to supplement large classes, then the composition is greatly changed.

The total population is divided into small groups with planned composition. The model small group consists of one selected and trained senior or group leader, two selected juniors, four regular sophomores and eight regular freshmen—or a total of 15 students. The group size should be held at or below this number to provide for optimum interactional possibilities. The composition of these working groups can be varied relative to student characteristics, the requirements of enrollments and methods and educational objectives.

### **How the Pyramid Plan Works**

The responsible faculty person works directly and intensively with the graduate assistants and the selected seniors or resource leaders. The work consists of defining objectives, training in the theory and practice of small group work, and defining issues and problems to be dealt with in student work-study groups. The faculty member, sometimes with the help of graduate assistants (or possibly seniors) identifies, collects, organizes and prepares materials. He prepares procedure outlines, discussion outlines, case studies and plans tasks for the student groups.

With this preparation the seniors work with their assigned small groups. The two juniors who are assigned with each senior take the roles of the junior leaders and assist the senior in each group.

The student work-study groups meet weekly for two-hour periods either during the evening or during a regularly scheduled period of the day. The faculty leader meets with the graduate students and seniors for two hours per week in basic planning sessions. The graduate assistants meet with seniors and juniors for two hours a week for more detailed planning sessions.

The student work-study groups deal with such topics as defining their roles as modern college students; sharpening the definitions of their personal-professional objectives; evaluating the requirements and their qualifications for tentatively selected professions; studying the skills needed, and how to acquire them, for successful academic work; considering the importance, significance and usefulness of information they are expected to learn in courses and relating this to their own changing needs and interests; discussing selected issues of the professions related

to their selected major fields of study; resolving for themselves the issues of higher education which affect them personally; and reviewing and understanding the central concepts and methodology of their major and related fields of study.

### Preliminary Results

Over a period of three semesters, 200 freshman and sophomore majors in psychology have served as subjects, having been assigned randomly to experimental and control groups. Analysis for nearly all of our data has been a variance analysis adjusting for pretest scores, although non-parametric and descriptive measures have been used where appropriate.

Tests devised to measure the effects of the Pyramid treatment include systematic observations of actual behavior as well as paper and pencil tests. They measure knowledge, work skills, attitudes, values, motivation, and choice behavior.

Gains by the experimental subjects in Pyramid groups have been promising in most areas tested, reaching statistical significance on major tests and showing a trend in other tests. Some highlights of our findings are as follows:

1. Student reaction. The reactions of students to Pyramid experience have been favorable and became increasingly more favorable as the program continued.
2. Evidence of increased motivation. Pyramid students used the library for scholarly reading more than control groups. In Pyramid groups, students progressively accepted greater responsibility for their own learning. On measures of the values, Pyramiders were significantly less vocationally-oriented toward college work and showed a trend toward greater intellectual orientation. They showed trends toward greater dependence on self for learning but also greater dependence on the classroom situation for learning. Pyramiders became conscious of the kinds of activities that promote education and took the initiative to ensure that such activities are made available to them.
3. Acquisition of skills that facilitate the independent pursuit of scholarly work. During the three semesters of experimental work in psychology, Pyramid students performed better than control groups on such measures as (1) Scientific Thinking Test, (2) Persistence in Critical Thinking Test, and (3) Resourcefulness in Problem Solving Test.
4. Orientation for choice of curriculum major. During the three experiments, Pyramid students have performed better than their control groups on such measures as (1) Attitude toward the Roles of Psychologists, (2) Profession of Psychology Test, (3) Survey of Psychology Test, and (4) Orientation to Psychology Test. A follow-up study of the first semester experimental and control subjects tested the hypothesis that the experimental Pyramid treatment increased the likelihood that students continued as majors in psychology a year later. Results

showed that 45.6 per cent of the controls were still majoring in psychology a year later, compared to the 46.4 per cent rate that had existed for all psychology freshmen during the previous five-year period. However, 83.3 per cent of the Pyramid students were still in psychology a year later.

This brief summary for three semesters of experimental work with psychology majors shows that the Pyramid Plan can produce important motivational and performance gains in students. The full report of results will be available in 1960.



## *What Are the Most Effective Methods of Improving Instruction With Special Reference to Individual Student Work Programs?*

**William H. Conley**

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**T**HE PURPOSE OF THIS paper is to discuss an innovation which resulted in improved instruction under specified conditions.

The project undertaken at Marquette University in the improvement of instruction, which is the subject of this report, was experimental in character but was not a scientific educational experiment. It was a pilot study involving three fields in which an attempt was made to provide for maximum self-activity on the part of students. Those who planned it recognized that many college freshmen, though high school records were good and aptitude test scores were well within the range of acceptable college material, lacked the competency in reading and expression to carry on the self-activity required. The assumption was that if the students could develop the reading and expression skills to a college level at the outset of their four-year program, they should be able to acquire a better education through guided self-activity than through the absorption of knowledge presented orally by college professors.

The program included three required courses from two departments. These courses were: the regular Freshman English (or Composition) course, the traditional History 1 and 2 courses; and the traditional Survey of English Literature. Normally, at Marquette, the student takes English 1 and 2 in his freshman year, one course each semester meeting three times per week and carrying three hours credit for each semester. From 22 to 25 students are enrolled in the regular classes. History 1 and 2 can be taken in the freshman or sophomore year and is also a six semester hour course meeting three times per week both semesters. A year survey of literature course is ordinarily taken in the sophomore year. Each semester carries three hours of credit.

In the regular composition course, the student is taught reading and writing, with greater emphasis on writing. He is instructed in the minimum essentials of written composition, modern grammar, the principles of rhetoric and the forms of rhetorical discourse. He writes 20 themes in two semesters.

History 1 and 2 is a general course in European history from the later Middle Ages down to the present. Emphasis is placed on the major

developments in Western civilization in their time and place settings. An understanding of the cultural heritage of our civilization, the forces that contributed to it, and its manifestations are among the objectives of this course. The abilities to analyze, relate, and synthesize are further developed.

The course in literature attempts to give the students knowledge of the development of literature, familiarity with samples of great literature, growth of critical understanding and esthetic appreciation.

The experimental course in English composition known as English Z1 was the core of the program. One hundred and fifty students with a range of abilities similar to those of the entire freshman class were selected for the experiment. The L scores on the American Council Psychological Test were used as a simple sorting device at the time of registration. These students took their full year of freshman composition in one semester, meeting five days a week, two hours per day—a total of 10 hours of classroom participation for six hours of credit. Only three additional courses could be included in the schedule of students. They thus reduced the number of courses ordinarily taken by one subject. Teachers were assigned to the English Z1 sections on the basis of ability, experience, familiarity with the regular program, and expressed interest in the experiment. During the semester the six instructors with the director of the project, and the chairman of composition, functioned as a committee in assessing and discussing the progress of the experiment.

The general nature of the experimental program in freshman composition differed from its regular counterpart in being planned closely in terms of a defined program to follow. The general objectives of both courses remained the same. The differences between the two courses became differences of emphasis and method.

In the experimental course, the student devoted much more time to developmental reading, a skill he would need to master in order to read independently in the courses following. Thus, reading became as important an objective as writing. The two-hour class period allowed the students to do much more writing in class under the direct supervision of the instructor, who frequently turned his class into a writing workshop. Instead of teaching the traditional forms of rhetoric-exposition, argument, description, and narration—the experimental course taught those skills needed specifically in the program to follow: exposition, argument, and evaluation. Specific projects like the traditional research papers became much more important. The library skills developed would be especially important to the student in his independent study later on. Thus, the research paper was based upon topics selected by the history department from the text book the student would be using the next semester. The book review became an exercise in the understanding and appreciation of literature as a preparation for the literature course that would follow in the student's third semester.

The actual classroom arrangement seemed to differ in outline very little from the traditional approach. There were 25 students to a section.

Since the instructor was teaching the equivalent of two courses, he received such credit for his teaching load. Any practical device that would free him from nonprofessional duties was introduced. Standardized tests were used liberally, largely for diagnostic purposes. These tests were divided conveniently into pre- and post-groups.

A final comprehensive writing examination demonstrated the student's acquired grasp in such areas as usage, grammar, and organization. Tear-out sheets and exercises were used to guide the student and to evaluate his correctness. Readers appraised the themes for mechanical correctness, thus freeing the instructor for the more important problems of competence, effectiveness, and rhetorical strategy. Twenty themes were required and each received critical comments. Periodic cumulative grades were assigned to each student.

At the beginning of the second semester 132 students from the group of 150 students in the English Z1 program registered for History Z1. Dropouts were due primarily to withdrawal from school or schedule conflicts, particularly among pre-dental students.

In History Z1 students met once a week for one hour on Monday for one semester and received six hours credit for the course. Obviously there was no relationship between the amount of time spent in the classroom and the content of the course. One professor met with the group for the single weekly session. During this period he attempted to motivate the students, illustrate how the historian approaches history, and to give guidance in carrying on the work. On every second Friday the professor met with the students again for a written examination. At the beginning of the course each student received a carefully prepared syllabus. This syllabus outlined the material that was to be covered in the course and indicated the exact assignments which must be completed. Two textbooks were required for the course and the students were also required to read and report on eight books from selected lists. Each student wrote two historical essays and completed six map exercises. The professor who taught the course received six hours of credit or one-half of his ordinary teaching load. The balance of his load was two regular courses in History 1 and 2.

The course evaluation of History Z1 was made by the professor. Two comprehensive examinations were prepared, one for the equivalent of History 1 (1500 to 1815) and the other for History 2 (1815 to 1957). These examinations were given to both the Z group and to the students taking history in the regular way.

The English Z5 and 6 followed the procedures of History Z1 and 2. A carefully prepared syllabus outlining the objectives, the structure of the course, the readings, and the assignments was distributed at the beginning. There was one lecture each week and a written quiz every second week for one semester. The course carried six semester hours of credit. The same body of readings was required as in the regular classes and four critical papers were assigned to all students. Two professors shared

responsibility for the organization, the lectures, the examinations, the evaluation of student papers, and the appraisal of the course.

It is the consensus of the members of the faculty who conducted the experimental courses that both teaching and learning in composition and history were significantly better than in the traditional courses. Several forces which would be present in any experiment contributed to this improvement, *e.g.*, focus of attention, unusual interest because of the unique character of the program, and the enthusiasm of participants. Clarification of objectives, careful planning in the organization of learning experiences to achieve the objectives, definition and delimiting the role of the instructor in the classroom, *i.e.*, motivating, guiding, illustrating, and measuring, have contributed to the improvement. The emphasis on student self-activity and the indoctrination of the students with this idea resulted in better learning.

Teacher reports, student reactions, and grades entered into the appraisal of these two phases of the program. Selected statements from faculty and from students about reactions to the program were illuminative. The analysis of grades in the experimental courses and measurement of the progress in all fields of each individual student in the group, in these two courses, gave further evidence of better achievement than might have taken place in the traditional sections.

The results of the experiment with English Z5 and 6 have been reported with less enthusiasm by the professors who directed the course. On the objective tests there was no significant difference between the scores of those in Z5 and 6 and those in regular sections. The professors' evaluation, however, states "we question whether at such an accelerated pace, combined with such a minimal faculty-student relationship, the growth in critical understanding and esthetic appreciation is satisfactory. An important part of that growth is or would seem to be best achieved by the give and take of classroom discussion which is impossible under the Z5 and 6 program."

Admittedly the entire program was a shock treatment. Its positive results were more favorable than were expected. Faculty consideration is now being given to modifications of the programs to meet scheduling and administrative difficulties and to provide additional discussion periods. Among the proposals under scrutiny are: two two-hour periods per week for two semesters in English 1-2; a single lecture and a single discussion period each week in History 1-2 for one semester; a single lecture and two discussions per week in English 5-6 for one semester.

The study proved to be a valuable experience which resulted in continuing faculty ferment. It must be regarded as a preliminary step toward re-emphasis on student self-activity and a new orientation of faculty members to their role in the education of students.



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**What Are the Most Effective Methods of  
Improving Instruction With Special  
Reference to Individual Student Work  
Programs?**

**George C. Grant**

*Dean, Morgan State College*

**W**HAT HAPPENS TO THE individual student in a class depends upon the effectiveness of the instructor in reaching that student. If one were to believe the critics of American education, then it is timely to consider more effective ways of reaching our goals. All of us do not agree that Russian techniques are more effective than American techniques. The ends of education determine the effectiveness of teaching to a large extent. Nevertheless, aside from a consideration of Russian competition, there is no question that administration, faculty, and boards of trustees must continuously explore all facets of instruction in order to make it more effective.

In recent years one has heard great emphasis placed upon new methods of instruction. Instruction by television and mass instruction by eminent scholars are among the newest of these proposals. Likewise, there is great emphasis upon independent study. This latter method is not new. It is new only to those who have never attempted to free the student for this kind of experience.

For the purposes of this article, I take the position that *new* does not mean necessarily something recently discovered. The term *new* may mean a combination of old elements, or a new look at an old technique, or that the teacher is inserting some ingenuity, creativeness, and imagination into his teaching.

From the point of view of imaginative teaching, many old techniques may take on elements of newness which add vitality to teaching and provide dynamic experiences for the learner. Creative and imaginative approaches increase communication between the student and teacher. Questions arise then, such as the following: How can one re-create and make more effective the lecture method, the discussion method, and the conference method? How can one establish independent study methods, student-guided seminars and class instruction which utilize small study groups? Is it possible to be creative in the logical or psychological development of subject matter, in freedom from the text, in questions projected in class, in assignments given and in the use of A-V aids? What are the different approaches to the use of student leadership? Similar

questions are to be found in the report *Improving College Instruction*.<sup>1</sup>

I submit that the application of creativeness and imagination in any teaching-learning situation results in more effective teaching methods.

### Effective Instruction

The Educational Policies Commission of the NEA issued a report in 1957 entitled *Higher Education in a Decade of Decision*.<sup>2</sup> On page 94 of that report there appears a heading, "Increasing Faculty Effectiveness." However, this report and other educational literature are devoted to suggestions for inducting new and inexperienced teachers into the teaching profession. In this publication there is little reference to improving the effectiveness of experienced teachers. This omission may lead one to inquire whether the underlying assumption is that teacher effectiveness increases with age and tenure.

Perhaps there is agreement that there is no such thing as "the most effective method." A method becomes effective in a situation if it meets certain psychological and pedagogical criteria. The problem arises whether there are certain common criteria or principles, which, if present in a teaching-learning situation, result in more effective instruction. The literature in the field suggests certain criteria. Four of these come to mind readily. First, there must be evidence of planning. Without prior planning and preparation, the ordinary college teacher is compelled to improvise as he goes along. Some very thin teaching generally results. There is no question that careful planning is evident to both observer and student. Gilbert Highet says in his book, *The Art of Teaching*, "The best way is to plan all the work which the class will do, to explain the plan to them and make sure that they keep it in mind and after the work has been completed to look back over it and sum it up."<sup>3</sup>

Second, there must be evidence of clearly understood purposes. These purposes must be grasped by the student as well as the teacher. Unfortunately, teaching is most ineffective in many instances because both the teacher and the student have a very dim idea of where they are going or why. Each day's work becomes a discrete experience, entirely divorced from what has gone before or what lies ahead. Simpson and Brown in their study, "College Learning and Teaching," list helpful criteria for evaluating college teachers. They say "questions which would be given considerable attention in evaluation of college teachers are as

<sup>1</sup> Kelly, Fred J., editor. *Improving College Instruction*. Report of a conference held in Chicago, Illinois, December 7-9, 1950, sponsored by the American Council on Education and the United States Office of Education. Washington, D. C.: American Council on Education, 1951.

<sup>2</sup> National Education Association, Educational Policies Commission. *Higher Education in a Decade of Decision*. Washington, D. C.: Educational Policies Commission, 1957.

<sup>3</sup> Highet, Gilbert. *The Art of Teaching*. New York: Knopf, 1950. p. 77.

follows: a. What are the specific teaching goals of the teacher? b. What are the specific learning goals of the individual learner?"<sup>4</sup>

Third, there must be evidence of mastery of the subject matter. This criterion is so obvious that perhaps it should not be mentioned here. The justification lies in the implication that the teacher, to be effective, must not only be master of the subject as he learned it in the university 20 years ago, but he must also be thoroughly conversant with current developments and discoveries in the field.

Finally, there must be evidence that the teacher is taking into account the varying levels of achievement and ability in the class. Effective teaching is a personalized activity with the student as the center of that activity.

These are some examples of criteria which are not exhaustive. The main objective of discussing such criteria with a classroom teacher is to provide him with a framework or background against which the teacher can chart his own growth toward effectiveness.

### Establishing More Effective Methods

Good instruction is more than interaction between the teacher and students within the four walls of a classroom. A whole constellation of factors must be present and active on a campus if inspired instruction is to result. This concept is discussed by Ordway Tead in *The Climate of Learning*.<sup>5</sup> The administration is one of the most important factors. It must be aware that good teaching is a continuing, dynamic and creative process. Neither research nor mere mastery of subject matter necessarily results in good teaching. The administration must assume the lead in establishing an atmosphere of creativeness as well as conditions of work which will result in high morale among faculty members. The whole college must be organized to encourage good instruction.

Administrative concern stimulates the development of a professional attitude toward effective instruction on the part of the faculty, and good professional attitudes help destroy the *ivory tower* concept.

The administration must be competent and ready to suggest leads which may aid the teacher in teaching students how to think, rather than how to memorize; to use books in the library, and to study independently. The acerbity of the criticism of American education as compared to Russian education suggests that one of the foundations could make a real contribution to American higher education by underwriting workshops on improving instruction. These workshops would be designed, not for faculty members as a fragmentary experience, but for presidents, deans, and heads of departments who have the continuing responsibility for improving instruction. Such administrators could learn

<sup>4</sup> Simpson, Ray N. and Brown, E. S. "College Learning and Teaching." *University of Illinois Bulletin* 49:74; June 1952.

<sup>5</sup> Tead, Ordway, *The Climate of Learning*. New York: Harper and Brothers, 1958.

how to recognize effective instruction, how to analyze instruction, how to make helpful suggestions toward improvement, how to evaluate instruction, how to compliment the teacher when he is doing a good job, and how to institute an in-service program for more effective instruction.

### **Relating Methods to Differentiated Abilities**

The next proposal is that effective methods must be related to differentiated abilities. I call attention to the heterogeneous nature of student populations in the average college, especially the freshman class. Upperclassmen are more homogeneous in ability to handle abstract ideas and data. However, in spite of selective admissions policies, we admit many students who have been deprived culturally, who are products of low socio-economic backgrounds, and who are graduates of inadequate high schools. Among the culturally deprived are many good minds which have not had the opportunity to develop. Through no fault of their own these *late bloomers* are retarded, but they possess the potential to make significant contributions. To view this problem casually may mean untold losses to society.

Is it possible within the present framework and objectives of the average college to do anything about this problem? Are we sure that the present administrative and curricula organization is adequate and appropriate for the ends we seek? The ends involve the development of each individual to the limit of his potential. The bright student is led to greater freedom of mind and discovery. The average student, who does less well with abstract data, is encouraged to use his maximum potential, and the lower-third student is given more detailed, objective, and practical experiences at the beginning of his career. Failure to take into account differentiated abilities means that one is not giving each student a democratic chance to succeed in college.

At little or no cost in personnel it is possible to organize administratively a program and curricula to provide for differentiated abilities. The faculty at Morgan State College decided that the traditional curriculum was inadequate and inappropriate in terms of the students we admit and in terms of the ends we seek. The result was that after considerable study, in September 1957, a Three-Track Program for Freshmen was inaugurated with A, B, and C tracks or curricula. Test results determine which track the freshmen follow. One of the basic features is homogeneous grouping, and a second is work load related to the present abilities of students. These features provide for effective instruction in terms of the needs and level of student development. A complete description of this innovation is printed in the October 1958 issue of the *Journal of Negro Education*.<sup>6</sup> The article contains evaluation statistics

<sup>6</sup> Grant, George C. "Democratizing a Phase of Higher Education." *Journal of Negro Education*, 37: 463-475; Fall, 1958.

up to the end of the first semester of 1957-1958. The structure of the program follows below.

One the basis of criteria which are established, students are assigned to the track for which they seem qualified. Students who show deficiencies, particularly in reading, writing, and oral communication, are placed in the *Basic Skills* or the *A Curriculum*. The courses in this curriculum are prescribed. The students are not permitted to pursue more than 12 or 13 semester hours of work, but are required to be in class, laboratory, or discussion groups a total of 20 clock-hours per week. Let me emphasize that this is not a remedial program in the usual sense of the word. There is some remediation in skills, knowledges, and study habits, but these are learned in a normal situation. The extra clock-hours provide time for additional help in the basic skills. Methods are designed to reach this group of students and there is provision for flexibility. If an *A Curriculum* student earns a 2.5 average at the end of the first semester, he is transferred to the *B Curriculum*. If he earns less than a 1.8 cumulative average at the end of two semesters, he is dropped permanently.

The *B Curriculum* students are those who show average preparation for college. They may elect a certain number of courses and carry 16 semester hours. They earn one semester hour credit for each clock-hour, except laboratory courses. If a student originally assigned to this curriculum fails to earn a 1.8 average at the end of one semester's work, he is reassigned to the *A Curriculum* the second semester, and is dropped permanently if his cumulative average at the end of one year is less than 1.8.

The *C Curriculum* students constitute about 10 to 12 per cent of the class. A rigorous, prescribed program of up to 19 semester hours is established for these students. All kinds of motivating and inspirational devices are used to keep these students working at capacity. Use of a *Think Room*, a work room, library stack privileges, biweekly afternoon teas with instructors, and competition for admission to Promethean Kappa Tau, Freshman Honor Society, are among the devices used. Naturally, the methods which are quite effective with these students would be entirely valueless with *A Curriculum* students.

The above is a brief description of experimentation in curriculum structure, an innovation which appears to us to possess many values related to more effective instruction.

***Improvement of Instruction***

**Sidney J. French, RECORDER**

*Dean, Basic College, University of South Florida*

FACTORS RELATED TO independent study and effective teaching are: motivation, including the relation of faculty member to student; when independent study should start; the characteristics of effective teachers and of ineffective teachers, and the role of the administrator in judging teaching.

Independent work should start early in the college career and involve the teacher as needed. Characteristics of effective teachers include: devotion to the subject, to teaching, to students; ability to relate to people, and to communicate. The effectiveness of teaching can be improved by in-service education, exchange classroom visits, and the use of tape recorders, kinescopes, and other devices.

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NOTE: Chairman of Group 18 was DONALD F. DRUMMOND, Associate Professor of English, University of Missouri; resource persons were SAMUEL BASKIN, Director of Educational Research, Antioch College; CHARLES C. COLE, JR., Dean of the College, Lafayette College, and REGINALD H. GREEN, Educational Affairs Vice President, United States National Student Association, Philadelphia, Pennsylvania.



## How Can Conditions of Work for College Faculty and Administrators Be Improved?

**Theodore D. Ellsworth**

*Professor of Retailing and Director of Research and Publications, School of Retailing, New York University*

**H**OW MANY PAYROLL DOLLARS is the average American college wasting annually by not utilizing the full potential of its faculty? If student enrollments follow the national upsurge in population and faculty salaries double during the next decade, the ability of a college to salvage these wasted dollars can prove the determining factor in its efforts to survive and to attain academic leadership.

The problem is: How can a college effectively tap unused potential of its faculty and save otherwise wasted payroll dollars? I suggest that improved faculty working conditions hold one key to the solution of this problem.

Actions a college might initiate to create the kind of working conditions essential to high level faculty productivity are examined critically below:

### **Effective Organization**

Faculty manpower is probably the costliest item in college budgets today, and, in view of present trends, is likely to be costlier in the future. To earn a fair return on its payroll expenditure, a college must integrate its faculty members and other employees into an efficiently functioning unit. In this process it should assign each person to the job he can do best, and establish relationships that enable individuals and groups of individuals to act as a coordinate whole. It should exercise extreme care in establishing these relationships since they are the genesis of high personnel morale, a major determinant of organizational productivity.

The unique characteristics of a faculty create a difficult problem in establishing sound organizational relationships. Specifically, the faculty is composed of professional scholars, many of whom enjoy national and international renown in their respective areas of specialization. Their work requires a high degree of imagination and creativity. The faculty gives the college academic status and builds its public acceptance and popularity. As the producing element, the faculty is the heart of a college organization. All other organizational elements, including the administration, exist to facilitate the work of these scholars.

To nurture and safeguard faculty organizational relationships, a college should establish a position at the vice presidential level. The person assigned to this position should be given responsibility for planning, developing, coordinating and evaluating faculty personnel policies and programs and should report directly to the president. He also should be responsible for advising the governing board and officers of the college on faculty personnel matters. He should be mature, possess a working knowledge of sound personnel practice, and have sufficient stature in the academic world and among his colleagues to inspire their confidence.

This action to improve faculty working conditions is intended to enable a college to use its manpower effectively. Faculty organizational position and relationships should be studied with great care, remembering that scholars require organizational status and freedom of action to make fullest use of their creative powers. To illustrate: everything else being equal, a college should earn the maximum return on its payroll expenditure by placing the administrative pyramid parallel to, rather than atop the faculty pyramid in the organization as is the common practice today.

### **Efficient Physical Facilities and Equipment**

Industry has proved that it is good business to recognize the direct relationship between physical working conditions and manpower productivity. To reduce unit production costs to a minimum, for example, industrial leaders scrap and replace physical facilities and equipment that still have considerable remaining economic life. They install in their factories air conditioning, scientifically controlled lighting and other creature comforts for the benefit of their employees. If the situation demands, they invest time and money to provide their employees with adequate living quarters and recreational facilities.

On the other hand, colleges, with few exceptions, have demonstrated little awareness of the relationship between physical working conditions and manpower productivity. Colleges might find the industrial practice of providing costly manpower with the best possible physical environment, including decent working facilities and equipment and residential housing, an effective way to counter rising operating costs. Since faculty salaries constitute a major share of college payroll expenditures, the faculty should prove the most productive manpower group with which to begin such action.

The physical environment of the faculty is conditioned by three distinct areas: classrooms, faculty offices, and faculty residential housing. A college cannot afford to overlook any one of these areas if it is to capitalize fully on its faculty payroll expenditure. For example, the faculty teaching efforts can be made most productive in efficiently designed classrooms that feature attractive decors and that incorporate all essential instructional aids and equipment.

Too, faculty members can study, reflect and do creative work best only if they are furnished with quiet private or semi-private offices to which they can and will return between teaching assignments. Faculty offices should be comfortably furnished, attractively decorated and outfitted with telephones, typewriters and other essential equipment.

Finally, faculty members can be most productive if they have comfortable, pleasant homes of which they can be proud. Preferably their homes should be convenient to their work and in communities with good schools and a wholesome environment for their wives and children. If suitable accommodations are not available at reasonable cost to its faculty, a college should initiate corrective action.

This action to improve faculty working conditions is intended to furnish faculty personnel with a suitable physical environment and equipment. To win the essential status with their students, colleagues, friends and the general public which faculty members need to be most productive, they require business and home surroundings appropriate to men and women of their education and professional attainments. Giving the faculty essential status at work and at home is also good public relations.

### Competitive Salaries

Colleges must compete with business and industry, government, and the professions for superior men and women. To acquire and hold the share of such manpower needed to fill faculty ranks, colleges must offer financial awards and other benefits equal to those that these able people command elsewhere.

Colleges have attempted to justify their lower salaries by rationalizing about the *psychic income* from teaching. I know airline pilots who are very happy with their short work week, big pay, world-travel jobs. I recall an \$11 a week wrapper during the depression who wouldn't accept a promotion with more pay because she liked her job. How many army officers, diplomats, doctors, lawyers or business executives would willingly trade roles with a faculty member? In fact, aren't we educators a bit smug in assuming that we have a corner on job satisfaction? Because colleges cling to this "ostrich with its head in the sand" attitude, faculty salaries lag far behind salaries in other fields and even behind teaching salaries in the public schools.

To build and maintain an outstanding faculty, a college must establish financial incentives that reward each faculty member in proportion to his contribution and are sufficient for him to live at a level normally enjoyed by others of his professional status. New salary schedules should include provisions for annual increments, merit increases, and paid vacations and should apply equally to all faculty personnel. New benefit and retirement plans should compare favorably to those offered by business and government. To prevent too great a shock to the budgets of the institutions and of the faculty members, sizeable salary increases should be carefully programmed over an extended period of time. Faculty salary

administrative procedures should be separate and apart from normal budgetary procedures.

This action to improve faculty working conditions is intended to raise faculty salaries and other benefits to levels competitive with those offered in other fields. Unless colleges are generally successful in raising faculty salaries to competitive levels at an early date, they are liable to find faculty ranks manned by *second-raters*. If this situation develops, American education will be set back decades.

### **Educator Development Programs**

Some personnel practices of colleges are difficult to understand. Why should colleges be the only level of education which allows a person to teach without thorough training as a teacher and which often fills administrative positions with people on the basis of their teaching qualifications rather than their administrative knowledge and experience? Again, it is difficult to understand why a college, whose primary function is education, should have to raid sister institutions for competent faculty and administrative personnel. The latter situation is all the more unbelievable in view of the number of leading business and industrial firms that have developed their own executives and emphasized a policy of promotion-from-within for many years.

If business firms such as the Dennison Manufacturing Company; the General Electric Company; Macy's Inc.; Minute Maid Corporation; and Sears, Roebuck and Company can each develop its own supply of executives and establish continuing leadership against aggressive competition, why can't a college develop the personnel it needs to fill its faculty and administrative requirements?

If executive development programs, with major emphasis on a policy of promotion-from-within, have proved a boon to employee morale in industrial firms, why shouldn't colleges profit likewise from a similar program? What is there to prevent a college from borrowing from business and industry an idea for building and maintaining an efficient personnel organization with high morale?

Colleges can and should utilize adaptations of the *executive development* programs of business and industry to improve their productivity by strengthening their faculties and boosting faculty morale through greater emphasis on promotion-from-within. Specifically, colleges should design *educator development* programs (1) to improve the effectiveness of faculty and administrative personnel in their present positions, and (2) to create the pools of qualified teachers and administrators at each organizational level required to implement an effective promotion-from-within policy.

Colleges are forewarned that educator development programs will require long-range effort to be successful. The instructional activities of such a program should provide men possessing the capacity to fill better positions with planned opportunities to broaden their knowledge and

experience. Since today's educator needs to have mastered more than the technical skills of his immediate job, instruction should be planned to give trainees (1) a thorough grasp of their individual areas of specialization, (2) a mastery of oral and written communications, (3) proficiency as a teacher, (4) skill in the art of practical human relations, and (5) an understanding of the role of education in a free society and an ability to defend it.

This action to improve faculty working conditions is intended to enable a college to develop the full potential of each faculty member. Colleges can formally assist faculty members to develop their individual abilities and encourage them to seek self-improvement by emphasizing a policy of promotion-from-within. What better incentive can a man have for improving himself than the tangible evidence of a better job at higher pay and the promise of an even better job if he qualified for it?

### **Favorable Climate for Scholarship**

It might appear to the casual observer that the battle for scholarship in American education has been lost. A number of aspects of college life give substance to this impression: college social and sporting events; the award of numerous scholarships on the basis of the recipients' athletic prowess rather than scholastic ability; the fabulous earnings of college football coaches; the successful wooing of scholars and potential scholars from faculty ranks by business through attractive salary and benefit plans, and the growing tendency of capable scholars to transfer to administrative positions because of the higher salaries and greater status that administration offers.

American colleges can rectify this situation if they will encourage scholarly pursuits and reward scholarly attainments; if they will nurture a true spirit of academic freedom; if they will give faculty equal status with administrators and actively encourage faculty participation in planning and developing educational policies and programs; if they will build and foster faculty-administrator rapport, and if they will provide the physical facilities and equipment, including libraries and laboratories, required by scholars in pursuing their varied investigations. Then, they must actively discourage or dispense with activities that emphasize non-scholastic attainments at the expense of scholarship.

To illustrate, recently I had the pleasure of visiting a school that a leading industrial concern built and operates in connection with its executive development program. The school has a three-fold purpose: (1) to develop and conduct advanced courses in management, (2) to do managerial research, and (3) to prepare materials dealing with new and old managerial concepts and their specific application to the firm's management and operation. The school plant is pleasantly situated and its construction embodies the latest advances in the design and decor of classrooms and student and faculty living quarters. It has excellent

reference and research libraries and reading rooms. Numbered among the faculty are some of the best known scholars in the country.

The particular feature of the school that impressed me most, however, was its research staff. They have the most ideal working facilities and equipment a scholar could desire. There is ample evidence, too, that these research people are encouraged in their work and are amply rewarded for their accomplishments. They enjoy the perfect climate for scholarship.

This action to improve faculty working conditions is intended to enable colleges to create total situations favorable to scholarly pursuits. They can do this best by concentrating on their primary function of education and scholarship and by encouraging scholarly pursuits and rewarding scholarly attainments.

### Evaluation

Measuring and evaluating the activities of the persons comprising an organization is an essential managerial function. It seems that the idea of being evaluated is generally repugnant to scholars so colleges are prone to evaluate their faculties informally. Faculty members are reminded, however, that they have been evaluated in some way throughout their working careers. How else could their salary increases and their promotions from rank to rank have been supported by responsible administrators?

It is axiomatic that each faculty member must justify his job on the basis of his productivity. A college needs a formal evaluation process that provides a measure of each man's productivity in terms of criteria mutually acceptable to the institution and to the man. The resultant information will help a college fix its number of faculty members and the salary of each. A realistically minded faculty member knows that the number of his colleagues is a major determinant in the size of his personal salary. For instance, if a \$1,000,000 faculty payroll is divided among 100 men, faculty members will receive an average of \$10,000 each. If the \$1,000,000 payroll is divided among 50 men, each will receive an average of \$20,000. Here is an excellent argument to discourage empire-building by faculty members.

In addition to measuring the productivity of its faculty members, a college should establish criteria and procedures for measuring the effectiveness of its over-all faculty personnel program. Possible criteria a college might use for this purpose include its ability to establish and maintain a position of academic leadership; recruit, develop and promote the scholars it requires to build and maintain an outstanding faculty; reduce faculty personnel turnover, and maintain good relations with students and community. The size of the demand by other colleges for faculty personnel it has trained is another criterion.

This action to improve faculty working conditions is intended to provide a college with the information it requires to make sound deci-

sions in faculty matters. Its success in this instance will be determined by its ability to overcome faculty opposition to the idea of being evaluated. Business and industry have encountered and successfully combatted the same problem with organized labor.

### Conclusion

Business and industry failed in the past to provide employees with decent working conditions and to assume leadership of the employees' struggle to free themselves from economic want. Organized labor and its leaders moved in to fill the leadership vacuum created by employer neglect and initiated militant action to correct the deplorable conditions of the employees.

Today, colleges find themselves in much the same position in relation to their employees. Organized labor already is taking over leadership of the college service and maintenance employees' struggle for better pay and working conditions. The situation is making faculty members resitive. To quiet these scholars, colleges must act now to provide them with the best possible working conditions and to pay them what they are worth. If colleges succeed they will be amply rewarded—they will boost faculty morale and productivity and they will save many wasted payroll dollars. In addition, they will make faculty members proud of their teaching profession and of their college associations, and enable these scholars to walk tall among their fellow men.

Can and will colleges meet this challenge?

### Conditions of Work

**Louise A. Wood, RECORDER**

*Graduate Student, Teachers College, Columbia University  
Project Assistant, Conditions of Work Study, Association for Higher Education*

A CLIMATE FAVORABLE TO scholarship must take into account all the responsibilities of a faculty member. Personnel actions such as promotion and salary raises should be the consequences of known principles which are systematized in an objective means of evaluation. Efforts to make salaries competitive with industry or other professions raise the problem that only certain types of academic competencies are in great demand outside of higher education. Increased salary disparity among disciplines would result. Higher education has demands and rewards which are peculiar to it and which must be equated

on their own validity. The dollar sign is not the only motivation. Other important factors are tenure and academic freedom, along with better retirement plans, improved fringe benefits, increased work aids, recognition of the worth of good teaching, reduction in routine and non-academic work, and participation in policy formation. Good working conditions in higher education must provide parallel opportunity for advancement and attainment through either administrative or faculty channels.

NOTE: Chairman of Group 19, Section 1, was FRANCIS H. HORN, President, University of Rhode Island.

### **Conditions of Work**

#### **Margaret B. Fisher, RECORDER**

*Assistant to the President and Coordinator, Student Personnel Services  
Hampton Institute*

UNIONIZATION HAS GENERALLY improved college personnel practices. Conditions of work, job classifications, and supporting services are being defined clearly for both faculty and staff. Uniform salary scales and regular upgrading distribute increases equitably among ranks and departments. Fringe benefits add to disposable income, particularly at points of greatest need. Job classification and automation in clerical services make possible better services to faculty with relatively lower increases in staff and operating cost.

The trend in college architecture toward separation of private offices from noisy classroom areas and grouping of offices around shared clerical areas, is promising. Faculty morale is sustained by evidence that the administration is responsive to its needs.

NOTE: Chairman of Group 19, Section 2, was W. L. AYRES, Dean, School of Science, Education, and Humanities, Purdue University.

## Conditions of Work

**Patrick G. Hogan, Jr., RECORDER**

*Associate Professor of English, Mississippi State University*

CRITERIA FOR DETERMINING realistic measures of faculty productivity involve variable factors such as research capacity, teaching ability, community activity, significant organizational relationships, effectiveness on committees, work with junior staff members, interest in student groups, student counseling, and stimulation of intellectual interest outside the classroom. Specific methods of evaluating teachers include consideration of character, attitude towards institution, class visitation program, class atmosphere, consultations, and student evaluations. Such methods are highly subjective.

Communication between administration and faculty is good although improvement is possible; communication *up* is more difficult than communication *down*. Improper organization may be a major cause of poor communication, resulting in wasted manpower.

Characteristics typical of a favorable climate for scholarship are merit pay system, major medical policy, disaster insurance, TIAA plan, planned acquisition of equipment, repair plan, publication opportunities, grants for faculty research, reduction of debt structure, upgrading of pensions, scholarships for faculty children and new buildings. Cooperation between faculties and administrators is essential in most of these areas.

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NOTE: Chairman of Group 19, Section 3, was A. B. BONDS, JR., President, Baldwin-Wallace College.



## What Are the Most Promising New Approaches to the Graduate Preparation of College Teachers?

**Walter F. Loehwing**

*Dean, Graduate College, State University of Iowa*

**I**N THE TRAINING OF college teachers, interdisciplinary graduate courses and seminars are excellent devices for presentation of the history of ideas and of fundamental principles. These types of instruction can readily be structured to foster integration of knowledge and can be designed to aid the student in arriving at a synthesis of his educational experiences.<sup>1</sup> Drill in the synthesis of ideas is generally not provided in specific subject matter courses. The student should be so conditioned by his educational experiences that he will be able to find a reasonable working synthesis of his own and, in the awareness of its shortcomings, will seek to improve it throughout life. There are a number of recent developments which recognize this need. An example is the multi-disciplinary course in college teaching such as that recently established at Ohio State University.<sup>2</sup>

A rapidly expanding type of interdisciplinary course and seminar is that which gives a better perspective of our modern Western civilization in relation to ancient and older cultures, especially of those oriental peoples whose culture reaches back into the earliest pages of recorded history. There is a mounting urgency for consideration of such questions as to why our educational system has not resulted in a better control over international relations.

Although interdisciplinary seminars frequently have been criticized because of their informality and lack of objective testing to determine the accomplishments of student participants, it is significant to note that recent investigations have shown that institutions with high productivity and outstanding effectiveness in stimulating students have faculties who are not deeply concerned with close control and supervision of students.<sup>3</sup> Especially in the natural sciences, academic productivity was found to be

<sup>1</sup> Kelly, Fred J., editor. "Need For a Synthesis of Educational Experience." *Improving College Instruction*. Conference Report. Washington, D. C.: American Council on Education, 1950. 195 p.

<sup>2</sup> Walters, Everett. "A Course in College Teaching," *The Graduate School Record*, 2:3-4; 1958. See also: Axelrod, Joseph et al. *Teaching by Discussion in the College Program*. Chicago: University of Chicago Press, 1949.

<sup>3</sup> Thistlethwaite, D. C. "Conservation of Intellectual Talent." *Science* 128: 822-826, 1958.

more closely associated with informality of contact between students and faculty rather than with close control and supervision.

### Summer Session Programs

American colleges and universities are straining under the burdens of mounting enrollments, but their summer sessions generally operate far below capacity. Physical facilities for full-scale operations in the summer are available and summer programs can be expanded rapidly if the necessary funds are made available to increase summer session enrollments, which are commonly less than half those of the school year. There is great need for information on ways of retaining in school for summer study a larger part of the regular graduate student body. The large number of investigations which educational institutions are now undertaking concerning means of expanding summer operations, and the mounting federal subsidy for a great variety of summer programs indicate that expansion of summer study is an immediate necessity in higher education.<sup>4</sup>

A matter of considerable interest to college teachers is the fact that the summer session traditionally serves as an important proving ground in which many new ideas and projects are given their first test. Many types of instruction are often available which are not offered during the academic year, such as interdisciplinary courses, seminars, workshops and individual study projects. There are usually generous offerings in the fine creative arts, such as concerts, stage plays, operas and studio classes, in addition to opportunities for basic and developmental research and thesis work in all disciplines. Visiting professors, often from foreign countries, are brought to the campus to offer special types of instruction.

Summer courses of special interest to teachers completing their first year of college teaching are usually provided. Such courses deal with the techniques and materials of instruction and those subjects which the new teacher is increasingly called upon to present. Seminars for this purpose give the new teacher an opportunity to inquire specifically into matters actually encountered in the classroom. The summer session is, and will long continue to be, a convenient and effective device to upgrade and update experienced career teachers. Because of this trend, summer graduate enrollments are destined to increase at an accelerating rate.

### Graduate Liberal Arts Programs

It is important to explore the potentialities of graduate programs organized in liberal arts colleges for the training of college teachers. Many small liberal arts colleges already have masters programs especially adapted for the training of teachers. Masters degrees from such liberal

<sup>4</sup> Loehwing, W. F. "A Graduate Dean Looks at the Summer Session." *Proceedings Of The Fourteenth Annual Meeting Of The Midwest Conference On Graduate Study And Research*, 1958. p. 10-18.

arts colleges are generally recognized by the large universities of the United States. Extension of such programs as well as the development of two years of graduate study would be readily feasible. Studies of graduate programs in an undergraduate college indicate that they provide liberal training useful to those who plan to undertake college teaching in a liberal arts setting.<sup>5</sup>

Initial graduate training in this situation facilitates transition from undergraduate to graduate work and serves to reduce dropouts occurring among college seniors transferring directly to large major university graduate schools. A graduate program for the training of college teachers in the liberal arts college facilitates academic and vocational orientation largely by effective counseling services and by close and frequent student contacts. Such programs have had good records in terms of graduates' competence and permanence as college teachers. It is important that students learn a great deal about the field of knowledge to which they are drawn by their natural interests, and that they learn to teach by associating closely with good teachers in a liberal college environment. This can be done to excellent advantage in graduate studies which are closely related to an undergraduate program.

### The Library and Teacher Training

In expanding graduate programs for the training of college teachers, consideration should be given to ways in which library facilities can be used more effectively.<sup>6</sup> An innovation we found to be of great importance to graduate students at the State University of Iowa has been our ability to keep the main library open until 2 a.m. under the supervision of a very small staff. To judge from student attendance and a generally satisfactory operation, this plan has been a very useful service. Many graduate students have families and are obliged to live in crowded quarters. For such students, the benefits of the service fully justify the modest extra cost of late closing hours for the library.

Advanced graduate students need the use of a library carrel in which they can leave and lock up their research materials. The provision of private study facilities for graduate students cannot be considered an extravagance and actually is an important service which should be greatly expanded. It is also interesting to note that libraries are providing, on an increasingly large scale, equipment and service to facilitate excerpting, translating, and duplicating of written materials. In addition, libraries have made increasingly available the use of tape and disc recorders with special provisions for playback in private sound-proofed rooms or booths. It is safe to predict that such ancillary services under

<sup>5</sup> Raushenbush, Esther. "A Report of the Conference on College Teacher Preparation Programs" held by the American Council on Education, Committee on College Teaching, 1958, p. 66-88. See also: *A Graduate Program in an Undergraduate College*, Sarah Lawrence College Publication No. 6. Wesleyan University Press, 1956. 119 p.

<sup>6</sup> Wilson, L. R., Lowell, M. H. and Reed, S. R. *The Library in College Instruction*. New York: H. W. Wilson, 1951. 347 p.

library auspices will be increased as pressures for their availability develop among graduate students and faculty. A notable development along this line has been the Massachusetts Institute of Technology Center for Scientific Aid to Learning, which provides training and services in relation to printing, documentary reproduction, visual education, and mechanical selection.

### Expanded Laboratory Activities

The question is raised with increasing frequency as to what can be done to improve the efficiency of teaching by greater instrumentation. New types of instruments have permitted the development of laboratory work in the humanities, as well as modernization of traditional laboratory operations in the social and natural sciences. Departments of audio-visual instruction in American universities have made us quite familiar with projection equipment, tape recorders and films. The latter have acquired renewed importance as the result of low cost color film.

In addition to the foregoing, increasingly sophisticated apparatus is making its way into laboratories and classrooms in the form of oscilloscopes used in psychology and music, desk and console-type electronic computers, the tachistoscope for use in music and reading classes and models and mock-ups for mathematics instruction. In recent years closed-circuit color television has been displacing the individual microscope in science laboratory instruction. These devices are being introduced to get coverage of a larger student body by a single instructor. As the amount and types of mechanical devices increase, precautions are necessary to safeguard the personal individual experiences of students in doing something for themselves and to prevent their lapsing into the role of passive spectators.

It may also be noted that new trends in laboratory study aim to merge objectives of several sorts in a single course. Thus, the foreign language laboratory provides training quite incidentally in speech.<sup>7</sup>

Elton Hocking has discussed the contrasts between laboratory work in the natural sciences and in foreign languages. Foreign language laboratory exercises do not provide the same degree of individual work and experimentation as do those in sciences, but participation of the language student in oral-auditory exercises provides an excellent and exciting learning situation. The playback on a tape recorder becomes a most effective device for self-criticism and a means of obtaining objective comparisons.

The foreign language laboratory provides experience with, and control of, two basic language skills; namely, speaking and the understanding of speech. In addition, it is possible to undertake the learning process in its proper sequence—hearing, speaking, reading, and writing—without recourse to any visual or written form in the first two stages. Sound on

<sup>7</sup> Hocking, Elton. "The Language Laboratory," *College and University Business*. Purdue University, 1957. 6 p.

moving picture films provides the cumulative stimulus of eye plus ear, and this reinforced dual sensory perception operates to circumvent use of the student's own native tongue.

In addition to the above topics, there is need to consider academic training programs for college teachers studying at the graduate level. Of greatest interest are the combinations of content courses for master and doctoral candidates preparing to teach college-level courses in the natural sciences, social sciences and humanities. These questions assume growing importance because of the increasing use of holders of the masters degree as college teachers. The questions confront us as to how, in what colleges and universities and in what numbers college teachers can be trained to keep pace with growing college enrollments.

### **Preparation: College Teachers**

**Frank C. Abbott, RECORDER**

*Assistant Dean of the University, Bucknell University*

THE QUALITY OF undergraduate instruction and the fate of the undergraduate college depend upon finding a solution to the problem of supplying good teachers for mass enrollments in English, foreign languages, history, mathematics, and laboratory science.

In the search for promising new approaches there is reluctance about programs that would depart radically from the accepted *Ph.D. route*. If we ask our strongest graduate schools to set aside their fundamental obligation to be the community of scholars, we do so at our peril. One new approach might be admission to degree candidacy after two years of study, with a specified number of years in which to complete a research task, after entry into teaching. Graduate schools might expand their summer offerings as a means of enabling teachers to complete their degrees. Undergraduate colleges might establish leave programs for younger teachers, to the same end.



## **How Can the Responsibility for the Preparation of Elementary and Secondary School Teachers Be Widely Shared by the Entire College or University?**

**Mark H. Ingraham**

*Dean, College of Letters and Science  
The University of Wisconsin*

**I**T IS IRONIC THAT THE only profession entrusted with the entire formal education of its future practitioners—the teaching profession—accepts responsibility only in a fragmented fashion. It is not much more noble to be discontented to allow the whole pattern of the education of teachers to be determined by a small group than to be contented to allow it. If it were, I would be quite noble, for my discontent is only matched by my inactivity. It is the allowing, itself, that is the crime.

While I am engaged in self-accusation, let me say that unless I preceded any action by study, my action might be deleterious rather than beneficial. I have little use for the bipartisan "Get out the vote!" campaign. However, any campaign to infuse the voting with intelligence makes sense. Even if I have inherent masculine wariness of the League of Women Voters, I must admit that in this regard they have put the *horse* before the *cart*.

However, I do believe that if the mathematicians, of which I am one, really showed interest in the training of teachers of arithmetic, they would not have to spend so much time correcting it at the college level; if they showed interest in the training of teachers of English, they would not have to spend so much time correcting it in Ph.D. theses; if they showed interest in the training of the teachers of history, their students might have a framework in which the development of mathematics itself might be placed; and, incidentally, the mathematician himself might become more intelligent.

I would like to raise some pertinent questions to which I shall try to give some partial answers.

*What portion of the university or college faculty should have responsibility for determining the graduation requirements for teachers?*

I believe that the School of Education faculty should have as voting members all the faculty members in the college or university giving courses normally taken by students training to be teachers. I am not

sure that other faculty members should be excluded, for I believe the engineer, the lawyer and the doctor would have something to contribute. These faculty members should not, of course, determine the content of individual courses in education; but they should vote on how much time is devoted to courses in education, to practice teaching, to a liberal education and to the major; *i.e.*, the professional educator and the historian should help determine the contributions each one makes to the training of the mathematician. Incidentally, this is the legal structure at Wisconsin and, to an insufficient and yet surprising degree, the practice. As a mathematician I served on the Executive Committee of the School of Education; and the professor of education who later became dean of the School of Education served on the Curriculum Committee of the College of Letters and Science. This has led to mutual respect and to a stronger university.

*What groups should determine the content requirements of majors and minors in the various fields?*

Decisions as to the content of the majors and minors and of the curriculum in education should probably be left to the respective departments—strongly influenced by the total faculty as well as by the relevant portions of the public. No good department will let others make its decisions, but most good departments have self-confidence enough to listen to others and learn from them. It is neurotic to do otherwise. Moreover, the teachers in the schools have much wisdom to give regarding the way their successors should be trained; and the college professor should exert his influence on keeping the high school curriculum relevant to the growing edge of his subject. At the college level scholarship and research should always be elbow to elbow with teaching. We should always remember that the research of tomorrow should affect the teaching of today.

*How can state requirements be formulated so as to give institutions the desirable degree of initiative and self-determination?*

I believe that the minimum requirements in education determined by agencies outside the universities and colleges should in most states be reduced; and that at least for the high school teacher of academic subjects, minimum requirements for training in these subjects should be introduced. Moreover, requirements for graduation and a teacher's certificate by subject from a properly accredited college should be a normal requirement. Suppose we had as a state requirement something like 12 credits in education and 12 credits at a truly college level in any academic subject taught. I would not count, for instance, freshman composition, the first two years of a language or mathematics below the calculus. Then I would hope the colleges would place higher requirements for their own certificate. I also would allow for fulfilling these requirements by formal but rigorous examinations not connected with the taking of a course. I am not saying that the requirements in any field—for instance education—

should be reduced. I am simply saying that to a very large extent these requirements should be determined by the colleges and universities rather than by the state. I firmly believe that such a policy would bring both greater wisdom and more experimentation to the education of teachers.

*How can the total university or college participate in helping teachers after they have started to teach?*

Some schools of education do a good job of sending visitors to help their new alumni. I do not know of any departments of mathematics that do so, and I must admit I cannot see how this can be much improved in the next decade with the shortage we face of college teachers. However, the institute plans (both summer and full year), such as those introduced under grants from the National Science Foundation, have already proved highly successful and can be developed further. They have also led to greater flexibility on the part of graduate schools.

*What groups should be called upon to carry out educational experimentation?*

ALL—And report upon it too! Every class is an experiment.

*How can mutual understanding and responsibility be fostered among the disciplines?*

First, let me say this is not a polite way of saying "between education and the other disciplines." The natural and social scientists do not understand each other; the humanist and the economist do not understand each other; nay, even the mathematician and the physicist do not understand each other. How can one understand one who cares more how nature behaves than how man reasons? And yet, if I call a physicist unrigorous, and a physicist calls a literary man visionary (although the physicist himself probably loves music), and the literary scholar calls the economist an unappreciative boor, and the economist calls the mathematician an impracticable theorist, how can we get together except by uniting in calling the members of the department of education bad names? But, really, there is tremendously beautiful intellectual activity in all these fields, and we must show our common zeal for the life of the mind and our mutual appreciation of each other's activity.

For this—my last question—I have no answer, for it is a cry for help!

## College-Wide Teacher Education

**Richard E. Lawrence, RECORDER**

*Associate Professor of Education, Syracuse University*

and

**Sister Alonza Smith, RECORDER**

*Science Faculty, Webster College*

THE INVOLVEMENT OF THE maximum number of the college or university faculty in setting the underlying policies and defining the programs for teacher education is highly desirable. The trend toward greater institutional responsibility for developing sound programs is both apparent and welcome. Maximum efficiency is bound to result from the state's laying down minimum certification requirements and leaving to the institution a high degree of initiative and self-determination in the development of the total program. Recognition of the need for greater flexibility in certification requirements to permit such self-determination also is apparent. In the determination of professional accreditation matters every effort should be made to obtain a real representation from all the disciplines concerned with teacher education.

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NOTE: Chairman of Group 21, Section 1, was JAMES S. DONNELLY, Dean, School of Education, Fordham University; resource person was T. M. STINNETT, Executive Secretary, National Commission on Teacher Education and Professional Standards, National Education Association, Washington, D. C.; chairman of Group 21, Section 2, was HENRY W. SAMS, Office of the Summer Quarter, The University of Chicago.



## What Are the New Developments in the Preparation of College Administrators?

**Robert J. Wert**

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WITH ALL OF THE controversy over who should run American colleges, if anybody, a person who slides, no matter how haltingly, into a subject like training college administrators will presently be characterized in at least one of the following ways: (1) incredibly naive, if not stupid; (2) a missionary bureaucrat; (3) a thinly disguised time and methods engineer; (4) an apprentice "Captain of Erudition," Veblen's term for an academic administrator, or (5) "a young man in a hurry." The last category, "young man in a hurry," was brilliantly defined by F. M. Cornford in his little classic, *Microcosmographia Academica*, as "a narrow-minded and ridiculously youthful prig, who is inexperienced enough to imagine that something might be done before very long, and even to suggest definite things."

For better or worse formal efforts are now being made to offer pre-service and in-service training programs in various types of academic administration. Whether they are patently dangerous, if not subversive, or are spectacularly devised to ameliorate present travail cannot be determined now. We can damn them or applaud them depending upon our preconceptions, but only the most flimsy and short-term evidence about their effectiveness exists.

My task here is to describe briefly some of the attempts to prepare administrators. I will try to do this, but first of all I'd like to cover the general topic of academic administration and particularly the historic conflict and debate between faculty members on one side of a chasm and administrators and boards of control on the other.

As far as I can determine, the title *president* was first used in America by Harvard College when Henry Dunster became president in 1640. The first dean in the country was Ephraim Gurney, also at Harvard, in 1870. By 1900 practically all of the larger institutions had a president and one or more additional administrators. From the earliest days American colleges also had boards of control. One of Harvard's two boards, The Board of Overseers, dates to 1642. The President and Fellows of Harvard College, more commonly known as the Corporation, has continuously functioned (with one slight interruption) since the Harvard charter of 1650. Clearly, administration and boards of trustees have long existed in America.

Contests for power between teachers and administrators and boards have been waged for nearly as long. About 1825, for example, when Harvard could be compared to a poor high school, faculty members and President Kirkland were embroiled in a messy argument trying to revise the college's statutes. At one point the president had nearly grasped dictatorial powers; at the conclusion, the faculty triumphed and became the *Immediate Government* with the president as *primus inter pares*. Moreover, the Harvard faculty by statute received important authority over teaching and the curriculum which has never been relinquished.

At the same time some of Harvard's professors made a verbally bloody assault on the Harvard Corporation. In the charter of 1650, the incorporators of the college were "the President and Fellows of Harvard College." After much research on English usage, particularly at Cambridge University, the faculty members attempted to prove that, in accord with traditional use, the term *fellows* referred to resident instructors and that only faculty members along with the president had any legal right to be members of the Corporation. This was undoubtedly the most serious and most important effort in America to eliminate external control, once it had been established, and vest full authority for a college in its faculty. The faculty lost. The question was reopened again later in the century and again the faculty met defeat. The position of the lay board of control became legally unassailable at Harvard and subsequently at the many colleges and universities founded after the first half of the nineteenth century.

Since 1900, onslaugths have streamed against both administrators and trustees. Thorstein Veblen in his magnificent and searching criticism, *The Higher Learning in America*, called for the abolition of boards and the demise of administration as the single way to save research. Upton Sinclair, McKeen Cattell, Hubert Beck and others have launched an unending series of moon-shots designed to harry if not disintegrate college bureaucracy. In one sense the American Association of University Professors has been an institutionalized foray against non-faculty intervention in university affairs. The latest, if not the most telling, blow against administration, was lightly struck in the *New York Times Magazine* recently by a determined if not particularly bold teacher who signed himself "John Q. Academesis."

In the meantime administration has become increasingly more bureaucratic and administrators more numerous. If Max Weber could look at America in 1918 and contrast its universities with those in Germany because ours were a "bureaucratic system" characterized by "an extraordinarily wide gulf . . . between the chief . . . and the usual full professor of the old style," what would he observe now? How would he react to the organization chart prepared at one large American university under the leadership of a distinguished former professor of public administration which has seven tiers in the administrative hierarchy and lists 61 administrators of various types?

Whether one approves or not, American institutions of learning have

increased unbelievably in scale and have taken on hitherto unknown functions by the score. Some presidents enmeshed in the clutches of a leviathan have kicked and flailed to get swimming room and find some way to harpoon the monster. Specialists from industry, consulting firms, schools of administration, and even faculty committees have been called to help, but no one seems to have the appropriate hooks. On every large campus observers hear that the university is grossly under-administered from some sources and has a plethora of administration from others. No one really knows.

I have some decided opinions about this turmoil. First, increased demands from both outside and inside the university have made it impossible to operate without administrative bureaucracy. The traditional idea of rule by the faculty with elected short-term administration and a clerk or two, while once an ideal form of government, is now outmoded and impossible in any but the smallest institutions. Second, the character of academic administration has improved markedly until today it is the exceptional and retrograde president or dean who perceives of himself as an autocrat or dictator. Third, the great success of the better colleges and the AAUP in dealing with rights and obligations of faculty members has created a bulky cushion against administrative whim or undue interference by trustees. Fourth, the present chaotic method of selecting administrators must be overhauled and it should become possible, if not fashionable, for faculty members to admit that they would like to prepare for administrative careers. Fifth, a fairly large number of competing training programs should be available to prospective administrators. No one knows enough about administration to be sure that any one method approaches the ideal. Conflicting theories and practices should be tested.

Practically all college administrators today have followed the traditional route from classrooms to deanships to presidencies. The number of businessmen, generals or politicians in academic administration is negligible, if well dramatized. Most presidents have had no particular preparation and a few, at least, will never miss it. Either they are instinctively good administrators or they have worked on their own to learn administrative theories and practices. If the 150 new presidents who have attended the Presidents' Institute at Harvard are a fair sample, however, most new presidents are at least bewildered and sometimes acutely shocked by their duties and tribulations. They relish the opportunity to compare notes with colleagues and joust with more experienced presidents about administrative responsibilities.

In the future, as in the past, the vast majority of administrators will become so with no formal training. But increasingly institutes, internships, travel grants, workshops and other organized activities will supplement the normal catch-as-catch-can routines. At the present modest stage of development, six efforts will be described which tend, I think, to show future directions in administrative preparation.

The Institute for College and University Administrators was organized

by Harvard Business School faculty members a few years ago to experiment with short courses for academic administrators using the case method of instruction. The idea was *not* to make businessmen out of deans, but to see whether cases drawn from college situations would be successful teaching aids. At first the Institute faced serious difficulties in getting college case materials because many institutions did not want to advertise their successes or failures in public. Gradually, though, it has become possible to get cases from all over the country. So far the Institute has operated short courses for some 700 individuals from about 400 institutions. Programs have been arranged for new presidents and their wives, student personnel administrators, academic deans and trustees.

Typically the Institute's week-long sessions contain a main ingredient of case method discussion plus addresses by distinguished, experienced educators. Ordinarily a topic a day will be scheduled and the evening address will be on the same issue as the cases. T. R. McConnell of the University of California will evaluate the Institute's programs to determine something of their success or failure.<sup>1</sup>

Another effort to conduct in-service training for a rather different clientele has been underway at the University of Omaha for some years. The Annual Short Course in College Business Management was started by the late Charles Hoff, who built it from an idea into an institution in a very few years.

Each summer nearly 200 people involved in the business management area of colleges register for a week's work at Omaha. The faculty members change somewhat from year to year, but a uniformly high quality has been maintained. Longtime teachers include John Dale Russell of New York University, William Greenough of TIAA, Donald Dickason of the University of Illinois, Clarence Scheps of Tulane and Charles Hoff. Colleges from every region of the United States and Canada send representatives each year. Numbers of students have returned for from two to five additional years and the curriculum has been tailored to fit their needs. During the week, short, intensive courses covering nearly all areas of campus business operation are offered. These include accounting, operation of auxiliary enterprises, legal problems, personnel, purchasing, and insurance.

A third different approach to professional preparation functions at the University of Michigan under the auspices of its Center for the Study of Higher Education. A faculty consisting currently of Algo Henderson, director; John Brubacher, Jesse Bogue, M. M. Chambers, and others, offers internship training in college administration to professors and administrators who already hold doctoral degrees and who have had at least three years experience. From three to seven fellows are accepted each year. In addition to internship, each fellow does independent research, attends courses on higher education and generally has an opportunity to select activities from which he hopes to benefit.

<sup>1</sup> See Annual Reports of the Institute for further information.

The Center at Michigan is a university-wide organization guided by an advisory committee composed of administrative officers from Michigan's various colleges and schools. Its faculty is composed of members of the faculty of the Horace H. Rackham School of Graduate Studies and the School of Education.

A number of years ago various members and officers of the North Central Association began to wonder how the association could maintain a corps of consultants who would be capable of assisting member colleges. Few experienced educational consultants were available and a startling lack of trained younger men was evident. After many meetings of a committee chaired by Clarence Hilberry of Wayne State University, the Leadership Training Project was launched under the direction of Norman Burns. During the first year of the project, 15 younger administrators participated. After an initial conference each associate, as the participants came to be called, became involved in five week-long visits to colleges as members of a three-man team. An experienced evaluator guided the first visits and as the work evolved the associates assumed more responsibility. Each associate was nominated for the project by his institution. Although the theory was to train consultants, it became all too obvious that the course might become a breeding ground for college presidents to the great discomfort of some of the associates. Even younger administrators must maintain steadfastly that being a college president really never occurred to them.<sup>2</sup>

The Association of American Colleges has tacitly admitted that college presidents have difficulty remaining forceful educational leaders and has initiated a counter move in the form of annual great books seminars which force administrators to discuss educational ideas. This revolutionary development was aided by Cyrus Eaton who has hosted a number of meetings at his Nova Scotia estate.

Any review of efforts to prepare academic types for administration would be grossly incomplete if the role of professors of higher education was omitted. Over the years such institutions as Michigan, Minnesota, Teachers College, New York University, Stanford, and Chicago have offered work in higher education to graduate students from many fields. Doctoral graduates in higher education now hold leading administrative positions in every type of institution in the country.

What can be learned from this review of formal preparation of administrators? In my mind the most significant fact is that whether we are cheerful in recognizing it or not administrators are being trained and people who have entered the various programs are in demand. In historical terms this toward or untoward situation is startling. Moreover, the variety of possibilities of education for administrators seems more numerous than many would have estimated.

If we are witnessing the beginning stages of acceptable formal training

<sup>2</sup> Pfnister, Allan O. "A Regional Accrediting Agency. Experiments in the Training of Consultants for Higher Education Institutions." *The Educational Record*. 40:62-69, January 1959.

for academic administration, what will be the main future developments? No one knows, but I will suggest some alternatives.

First, it seems probable that colleges may follow the lead of large corporations and establish administrator development programs. The basic objective would be to increase the tyro's knowledge of a particular institution by working him in various offices on a systematic basis.

Secondly, internship plans could be extended so that prospective administrators could be attached to able and experienced deans and presidents to learn all they can from them.

Third, the few administrative travel grants now available could be multiplied so that more people could compare college practices.

Fourth, interdisciplinary education for administrators could be enlarged and the talent of political scientists, anthropologists, sociologists, educationists and others could be merged to produce radical new insights into administrative structures and processes.

### **Preparation: College Administrators**

**Karl W. Bigelow, RECORDER**

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OPPORTUNITIES FOR THE SPECIFIC and, often, intensive study of the problems of college administration—and of what it may be presumed would be helpful to those charged with the facing of such problems—have multiplied in recent years. There are, for example, short programs for new presidents and for business officers, internship arrangements for persons being groomed for administrative appointments, and doctoral programs for persons seeking to prepare themselves for administrative assignments. These beginnings have been modest but it seems reasonable to anticipate that they will be expanded and that other experimental schemes will be introduced. The period appears to be one of exploration, with clear evidence as to the relative values of the various innovations still to come.

There seems to be substantial general agreement that those who undertake specific preparation for administrative work would do well first to establish their standing in some academic teaching field—although whether this is essential to the development of administrative skill or merely a prudent accommodation to academic prejudices is a matter for debate. Clearer is the administrator's need to have an informed grasp of the college and university culture expressing itself dynamically through time in the form of living social institutions. This, and the ability to guide the behavior of academic groups in the service of ever more clearly

perceived institutional ends, come prior to a group of sound principles and procedures of specific administrative actions, important as these are. Social imagination and the capacity to inquire and lead are also very important.

Training for those already chosen for administrative work, through instruction and internships, seems to have demonstrated its value, but the opportunities are still limited by practical difficulties, among others. There are also problems connected with the self-selection of younger people for administrative training and, indeed, with the identification and encouragement of such by others. Yet considerable success has attended experiments along these lines.

The situation is and should remain fluid. The mounting external and internal pressures on college administrators demand more systematic study of the nature of their jobs and of alternative approaches to their problems. The resulting knowledge will enrich pre-service and in-service training programs. Evaluations will come in time and approved patterns be identified. It is premature to reach conclusions as to what are the *best* ways of producing *good* administrators: probably numerous ways, including trial and error, will continue to have intelligent support for a long time to come.



## How Can an Institution Maintain Its Integrity of Purpose and Program Amid External Controls?

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**O**UR COLLEGES AND UNIVERSITIES are constantly subject to a variety of conditions that threaten to limit their freedom. Some of these affect primarily publicly supported institutions, others affect primarily those that are privately supported. Still others affect all types of colleges and universities.

It is the purpose of this paper to identify some of the external agencies and influences that actually impose, or threaten to impose, controls on the autonomy of higher institutions in defining their purposes and in providing appropriate programs.

### *Growing Control of Higher Institutions by State Governments:*

One of the sources of encroachment on the autonomy of higher institutions is government—state and federal.

Most directly affected by increasing controls of state governmental agencies are, of course, the tax-supported colleges and universities. It is not my purpose to discuss the theory of government as it affects those institutions. It may be noted, however, that some forms of control are proper and necessary. As Richard A. Plock has said in his *Issues in State Control of Higher Education*:

There are few who would dispute that executive guidance in the formulation of the state budget and that legislative control over the extent of state appropriations are properly the functions of the governors and of the state legislatures, respectively, in representing the people of their states. No one would deny that in the expenditure of public funds there should be no secrets and such examinations should be subject to continuous and rigorous post-audit.

On the same point another writer has this to say:<sup>1</sup>

By fiscal independence, I do not mean the complete absence of restraints. There are what I would term essential prerequisites for the appropriate exercise of fiscal autonomy. By this I mean that higher education should fulfill certain basic structural and procedural conditions in its administrative pattern, as follows:

<sup>1</sup> Excerpted from a statement made by Arthur Naftalin, Commissioner of Administration, Department of Administration, State of Minnesota, St. Paul, before the Committee on Government and Higher Education in Baltimore, Maryland, September 27, 1957.

(1) Within a state all the various components of state-supported higher education would be consolidated in a single comprehensive system. In my view the components of higher education are not severable and should be viewed as part of a single pattern. A multiplicity of separate governing bodies creates a competitive situation out of which grows the need for ratios and formula with which to determine an equitable allotment of available resources. It creates the need for an external agency that can integrate and coordinate the several competing agencies. The more separate boards there are, the greater the need for coordination and the greater the role played by the central reviewing agency. For this reason I favor integrating under one responsible directing authority all institutions of higher learning within a state. . . .

(2) A second prerequisite for effective fiscal independence is the development of procedures for budgeting, accounting and reporting that insures the confidence of the executive branch, the legislature, and the public in the management of the institutions of higher education. In their concern to protect their financial position, some college and university administrators have given the public impression that what happens within the college or university is not necessarily the concern of the larger public. They appear to operate on the premise that they have a higher obligation to the institution itself than they do to the state. . . .

(3) The third prerequisite for effective fiscal autonomy is perhaps the most difficult to realize. This is the separation in programming, accounting, and reporting of those services and functions that are not directly related to teaching and research. Institutions of higher learning today perform a wide range of activities which, while extremely valuable to the larger community, often have little to do with intellectual development. They tend to drain off a significant portion of our limited resources into activities that can be performed by other state agencies and that can be appropriately subjected to executive control. I believe there is a connection between diminishing fiscal independence and the growth of non-academic functions. So long as the university or college remains an academy it can legitimately demand financial independence, but, the more non-academic they become, the weaker is this claim. Indeed some fiscal officers argue that in higher education today academic freedom is no longer a primary concern by reason of the fact that the enterprise is no longer primarily academic.

The tax supported colleges and universities become concerned, however, because state fiscal officers—comptrollers, budget directors, purchasing agents, auditors, building authorities—undertake to determine how funds that have already been earmarked for educational purposes shall be spent.

On this point Plock makes the following observation:

Much has been made of the argument that if governmental controls deal with budgetary and financial matters alone they do not affect the academic integrity of the institution. That argument is

pure fantasy. If time permitted, numerous examples could be given of unwarranted controls exercised by state comptrollers, of state personnel directors who have prevented academic promotions by their definitions of educational positions, of state budget directors who have prevented the creation of new academic positions, of state purchasing agents unwilling or unable to obtain teaching equipment and supplies when needed, of pre-auditors attempting to define institutional policies, of state building authorities and boards of public works either unfamiliar with or unwilling to heed the needs of the educational institutions. This type of operation is not conducive to efficiency or economy in the management of institutions of higher education. Too many cooks have spoiled the broth in far more states than the average citizens realize.

The legislatures like the executive officers of state governments also become involved in this issue of control. Legislatures exercise strong controls when they set a limit on salaries of faculties and administrators, when they adopt line-item budgets, when they specify courses to be taught and when they make appropriations for programs not requested or even desired by institutions. Legislatures have exercised strong influences on the operations of institutions by threatening to enact controlling legislations or by establishing interim committees to investigate alleged conditions in the institutions of higher learning. In fact legislative investigations have attacked private as well as public colleges and universities.

A number of reasons underlie these somewhat confused and disturbing conditions affecting the relationships of state governments to higher institutions.

Higher institutions have expanded enormously both in the amount of support they require and in the scope of their activities. Competition for the tax dollars has become increasingly keen between the higher institutions and other governmental functions and in some states among the institutions themselves. Legislatures have begun to question whether the institutions actually need the funds they request and unfortunately some administrators have lent credence to these doubts by padding their budgets so that they will still have funds for basic needs after anticipated legislative slashes have been made. This mutual lack of confidence is not compatible with the dignity of higher institutions, nor is it a wholesome attitude on the part of legislatures.

Closely related is the concern of legislatures about duplication in programs and inefficiency in the use of public funds when several institutions each present their budgetary requests with an accompanying lobby supported by local constituents. Such a condition inevitably requires the legislature to be the coordinating body for all higher education under its jurisdiction.

Still another factor is the role that higher institutions play in the advancement of knowledge. New theories, new concepts, departures from orthodox and conventional theories give rise to the charge of liberalism and of left wing tendencies. Those who are disturbed by these charges want them investigated and controlled. The expansion of

the programs and activities of institutions into fields that are marginal to their primary purposes may be another cause for legislative or citizen concern.

Still another factor, one of a very low order, is the opportunity that the budgets and personnel of higher institutions offer for unscrupulous political exploitation.

*Tendencies toward increased control by the federal government:*

The federal government has become a major agency both in utilizing the facilities of higher education and in supporting directly or indirectly their operations. Recent federal legislation as well as proposed legislation is increasing still further the support and use of higher institutions. Thus far, it appears that considering the large stake it has in higher education, the federal government, over the years, has exercised a minimum of control.

In recent years, however, steps have been taken by the federal government or its agencies that may well constitute an alert to the higher institutions. Within the last decade the following situations have arisen:

First, the chairman of the House Committee on Un-American Activities (1949) requested more than 100 colleges and universities to submit lists of text books and supplementary readings approved for use during the year 1948-49 and for the next year, if available. The subjects specified were literature, geography, history, philosophy, economics and all other subjects in the social science field. The purpose in requesting these materials was not stated but there was little doubt in the minds of most educators as to why they were wanted. Vigorous protests from educators and from some members of the committee itself blocked the inquiry.

Second, recipients of research fellowships were required to submit to a loyalty investigation. Later acts have required loyalty oaths from professors who are paid federal funds for teaching correspondence courses in cooperation with USAFI. Currently such an oath is required of recipients of loans or fellowships under the National Defense Education Act of 1958.

Third, on several occasions the Veterans Administration has attempted to impose on institutions engaged in the education of veterans requirements wholly inconsistent with the policies and practices of the institutions.

Fourth, research contracts negotiated with institutions have in numerous instances imposed severe restrictions on research scholars regarding the use of their research findings.

As increased federal financial aid to higher education becomes available, the possibilities of federal control will also increase. Let me add, however, that I am convinced that there is no sinister, diabolical design on the part of persons in the Congress or in the various branches of government to gain control of higher education. Each incident that points in that direction represents an attempt by some agency to achieve a specific end, without a full realization of what the implications of the

proposed measure may be. But such short-sightedness does not mitigate the danger involved.

*Controls exercised by non-governmental groups and agencies:*

A long list of nongovernmental groups and agencies that undertake to exercise some control over programs or institutions of higher education could be compiled. Only a few will be noted for illustrative purposes.

First, professional groups and accrediting agencies exercise strong controls. On the whole the impact of these groups is constructive. Some, however, dictate a form of administrative organization that is not to the best interests of an institution; others prescribe quite rigidly programs or curricula in their particular fields, and still others undertake to influence institutional policies. The establishment of the National Commission on Accreditation was the direct result not of the good effects of these organizations, but of the harmful effects of their procedures.

Second, organized citizens groups whose common bond may be previous military service, religious affiliation, or allegiance to a deceased educational leader may have a controlling impact. Generally such groups resist change to the point at which institutions under their influence fall far short of rendering their best services.

Third, alumni may be an asset in their relationship to alma mater but they may also be a liability. They have been known to dictate policies on athletics including the hiring and firing of coaches, and to support practices and traditions that are not to the best interests of the institutions to which they profess their loyalty.

Fourth, the press can be a powerful source of control of institutional practices and policies. The president of a well-known university told me that one of his chief problems is the unfair treatment that his university is being given by the press. He found small consolation in the fact that the president of a neighboring university was having a similar experience. During the years that I was associated with the University of Chicago after the abolition of football it was difficult indeed to convince the press that the university had not completely "gone to the dogs."

What I have endeavored to say in this somewhat sketchy and undocumented presentation is:

1. To achieve maximum results in its service to society a higher institution must have a large degree of autonomy.
2. To preserve its integrity an institution must inspire confidence by meticulously displaying integrity.
3. External controls must be of such a nature and must be exercised in such a way as to facilitate rather than impair the effective operation of an institution.
4. Some external controls exercised by the state and federal government and by nongovernmental agencies and organizations actually impair or threaten the effectiveness of some institutions.

*Institutional Integrity*

**Donald A. Sears, RECORDER**

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INSTITUTIONS ARE CAUGHT in a complex of trends that will increase external controls. Demand for greater efficiency forces centralization within states, creating the problems of where control will be located and by whom it will be exercised. Other controls come from legislatures, state bureaucracies, citizens organizations, and accrediting agencies. Of special concern is increasing pressure on the part of agencies representing individual disciplines (e.g., medicine, teacher training). These emphasize segments rather than total institutions and thus fossilize departmental structures in an age of interdisciplinary needs. The National Commission of Accreditation should be strengthened in resisting such agencies.

The rapid growth of national testing programs threatens control over curricula by the nature and content of the tests developed. There is need for a cooperative study of the impact of national and state-wide testing programs upon institutional curricula.



## How Can the College Develop and Use an Institutional Self-Study Program?\*

**Philip H. Coombs**

*Director of Research, The Fund for the Advancement of Education, New York City*

THE SELF-STUDY HAS BEEN one of the more prominent postwar fashions in American higher education, reflecting, no doubt, a keen awareness that colleges must change with the times or fail in their mission and responsibilities.

In the last half dozen years an impressive number of institutions have conducted self-studies of a widely assorted character and with varying degrees of success. The most successful have been those which were clearly conceived as to purpose and strategy, skillfully prosecuted, and consciously calculated to produce action—not merely the moral equivalent of action in the form of a more or less resounding report which could be commended and forgotten.

While self-studies have differed widely in scope and procedure, they have usually shared two main characteristics. First, they have been done primarily by the faculty (though often with the participation of administrative officers). Second, they have dealt almost exclusively with the *academic side* of the institution—especially educational objectives and curriculum. Under the prevailing governmental system and folklore of American higher education, these important matters lie, by common consent, within the province of the faculty. In any well-run college the trustees meticulously refrain from interference with the curriculum, and administrators treat the matter with utmost delicacy. The successful dean or president, to borrow the words of Dean DeVane of Yale, is he who manages “by high craft and low cunning” to get his educational reforms adopted by the faculty without suspicion of their true parentage.

At this point it is pertinent to note another postwar fashion—the management study. This type of study has been the counterpart to the self-study in the sphere of influence conceded by common consent to the trustees and the administration in the divided world of the college campus. Under the prevailing division of territory, it is the privilege and the responsibility of the administration and trustees to mobilize and manage the physical and economic resources necessary to support the educational program which the faculty has determined. Accordingly, the management study has become a fashionable instrument by which

\*The actual title of this paper was "Self-Studies For Tomorrow."

the trustees and the administration seek to adjust the college to its changing environment and its mounting problems.

The management study in its classical form focuses upon such matters as organization, purchasing, the care and feeding of endowments, buildings, and grounds. It is ordinarily conducted by an outside consulting firm under the direction of the trustees or president and in polite but limited consultation with the faculty. The visiting management consultants, being agents of the trustees, meticulously avoid crossing into the forbidden land of curriculum and academic practice.

The contrast between the self-study and the management survey is useful because it underscores a set of deeply entrenched campus concepts and attitudes which represent a major obstacle to the advancement of American higher education. Whatever its advantages may have been in days gone by, this sharp division of the college world into two mutually exclusive and sometimes hostile spheres of influence—the curriculum controlled by the faculty and finances by the trustees—is no longer a valid or viable basis for operating American higher education. The plain fact is that the two worlds of the college campus are really one, and to treat it otherwise is to jeopardize the future of the college and the quality of education.

The academic program and the economic affairs of a college are inseparable. When the faculty chooses, for example, to proliferate the curriculum, it is also choosing, more often than not, to preclude an increase in faculty salaries, with consequent effects upon the quality of the future faculty. Likewise, a self-study of the academic program by the faculty, carried out without reference to existing and prospective economic limits, may result in an improved program on paper but a deteriorated program in fact. On the other hand, a management study by the administration which succeeds in getting the lawns mowed or the students fed more efficiently may prove utterly irrelevant to improving the quality of education unless the savings are carefully directed into strengthening the academic program.

What is needed for the good health of American higher education is a fusion of the comprehensive self-study and the comprehensive management study into a new type of enterprise which, for lack of a better term, may be labeled the comprehensive long-range planning study.

Such a study would necessarily involve the cooperative participation of administration and faculty talking freely and frankly together. It would comprehend both the *academic* and *management* side of the college. It would be addressed to this central question: What do we want our college to be like 10 years from now, and what will it take to accomplish this?

More specifically, a long-range planning study would begin with sketching a tentative model of what the college in question should look like at some designated time in the future. What kind of student body does it want—how large and what composition? What does it wish to do for these students—their intellectual growth, their values? What kind

or kinds of programs are most appropriate for them to provide? In short, what type and quality of *end product* does it aim to turn out? The answers to the foregoing questions must obviously take account of the traditions, the sponsorship, the present practices, and the environment of the particular college.

Having defined in rather specific operational terms the clientele they desire to serve and the services they wish to render, the college planners must turn to practical questions of method and feasibility. What size and type of faculty will be required? What salaries and other conditions will be required to attract and hold such a faculty? What will be an appropriate work load, and how can faculty time and talents be most effectively employed? What should be the general dimensions of the curriculum—how many departments, how many courses, how many classes, and what kind of class size distribution? What types of teaching and learning methods will be most effective in making the most productive use of faculty and student time and yielding the best final educational results?

What facilities and equipment will be required to carry out the program, and how can these be used most efficiently so as not to divert resources needlessly to brick and mortar away from other important purposes? And finally, the inevitable question, how much will all this cost, and where can the money come from—how much from endowment and gifts, how much from students, how much from other sources? A hardheaded, even if optimistic, examination of this latter question may lead to reconsideration and adjustment of answers to earlier questions.

These are only illustrative of the kinds of questions that must be asked and answered tentatively in order to develop an operational model—a set of working guides—for any college that is to ensure its educational integrity in the critical years ahead. This *model* is obviously subject to periodic readjustment to accommodate changing circumstances, but without such a working model of ends and means a college is without guidelines for decision-making—in either the academic or management realm.

In carrying out such a planning study there will be a natural division of emphasis and responsibility between the faculty and trustees, with the president, as usual, bridging the two. The trustees cannot escape ultimate responsibility and decision with respect to the broad aims and dimensions of the institution—such as the general characteristics of program, the size and type of student body, the size and type of faculty, the general scope of the curriculum, and the mobilizing and general management of resources. Within this general framework, however, the faculty must develop the best possible curriculum, its detailed content, and the most effective educational procedures.

Once the general outlines of a working model for the future are designed and agreed upon, it will be necessary to develop careful procedures for moving toward it and for checking progress along the way. The faculty will have the task of filling in the details of the curriculum. In most institutions it will be necessary, among other things, to develop

a considerably improved system of accounts and reports, not only in terms of dollars but in terms that will reveal how manpower and facilities are in fact being employed, and what educational results are forthcoming.

It is a fair guess that the process of developing and carrying out a long-range plan of growth and improvement will lead inevitably to changes in concept and attitude and changes of actual practice in the prevailing system of internal collegiate government. No one can be sure what these changes will be, but we can be quite sure that they will constitute an advance.

At first glance the kind of long-range planning study here proposed is likely to be repugnant to all sectors of the college community. Faculty members are often offended by the notion that the lofty business of teaching and learning is somehow connected to and affected by such mundane matters as economic resources. Presidents and trustees, long accustomed to playing the budget by ear from year to year, sometimes from month to month, and being well aware as practical men of affairs that the future is always uncertain, have an instinctive distrust of any effort to describe future college goals and operations in anything but the vaguest rhetoric.

The fact remains, however, that a few colleges have recently tried to do exactly what is here suggested, though usually with considerable skepticism at the outset. In each case they were pleasantly surprised. It usually turned out, for example, that raising faculty salaries very substantially over the next few years was not going to be as impossible as it had seemed, and that the facilities requirements for handling more students were far smaller than had been assumed. For the first time, also, there was a clear set of priorities for guiding budget decisions and for guiding curriculum decisions.

The techniques for achieving better academic management so as to get the best educational results within the limits of whatever resources are available are still in a relatively primitive state. The colleges certainly have the brainpower for developing these techniques to a higher and more useful form. There is no more important business at hand.

### *Institutional Self-Studies*

**Sister M. Digna, O.S.B., RECORDER**

*College of St. Scholastica*

THE SELF-STUDY can be effective if it is clearly conceived as to purpose and strategy, skillfully prosecuted and produces action. Since many of the larger foundations are no longer interested in financing such studies, institutions themselves need to allocate funds for this purpose as part of their research activities. A self-study can be a guide to further implementation of the offerings of the institution, but only if it involves all individuals responsible for the institution. In the past, institutions have tended to emphasize either the *academic side* or the *management side* of this type of study; a more effective approach would be the fusion of both into a long-range planning study.

Many self-studies in the past were of little value since the planning, producing, and interpreting of the data was carried on by an isolated group in the institution which created rumors and hostilities that prevented any resulting action from the study.

All who have a stake in the institution might well be involved in fact-finding, but decision-making should be the concern of those who make the policies for the institution.

The Fund for the Advancement of Education has studies and information available to institutions which offer some directives as to what to do and what not to do.

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NOTE: Chairman of Group 24, Section 1, was JOHN DALE RUSSELL, Director, Office of Institutional Research, New York University.

## *Institutional Self-Studies*

**Delsie Holmquist, RECORDER**

*Dean of General Studies, Moorhead State College*

THE SUCCESS OF A SELF-STUDY depends largely upon the involvement of all members of the institution. Another requirement is administrative support of free inquiry and experimentation.

A statement of the purposes is an effective way to begin the evaluation. Lofty generalizations may be forestalled if all departments and faculty members supply specific statements of the contributions of their subject fields to the general purposes of the institution.

The data needed in a self-study will not only reveal present strengths and weaknesses, but will also indicate future trends and needs. This information will prove useful in long-range planning.

Values of a self-study are changes in faculty attitudes and insights, and the use and analysis of the collected data as stimulus for continuous self-study.

NOTE: Chairman of Group 24, Section 2, was DONALD DERBY, Dean of Administration, The American University.

## *Institutional Self-Studies*

**August W. Eberle, RECORDER**

*Provost, University of Chattanooga*

A GOOD SELF-STUDY is designed for a specific institution, is a continuing process, and includes analysis of all aspects of the institution. The total strategy of the self-study should be planned at the beginning. There should be broad participation with adequate opportunity for registering dissatisfaction, but control should be vested in a relatively few respected people with imagination. Final reports should be as brief as possible, and recommendations should include provision for the mechanism for implementing the recommendations.

Frequently, self-studies are criticized because they result from requirements imposed from without and because they do not seem to get results. Many studies do result, however, from needs felt within the institution and appear to bring about long-range improvements even if immediate action does not occur. The spirit of inquiry developed, the information gained from the study, and the involvement of many individuals are important concomitant results.

NOTE: Chairman of Group 24, Section 3, was THOMAS A. SPRAGENS, President, Centre College of Kentucky.



## How Can We Acquaint Students with the Problems of Non-Occidental Peoples?\*

Huston C. Smith

Professor of Philosophy  
Massachusetts Institute of Technology

IT IS ONE OF THE ironies of American history that the very people who turned their backs on the rest of the world to build the good society on their own soil have found that the means they developed for doing so—science and technology—have jerked them violently back into the world they deserted. Our unwilling involvement in two-and-a-half hot wars in the last half-century and the continuing cold one has proved that no nation today can be an island politically. The Great Depression of the thirties proved that no industrial nation can be an island economically. And a thousand signs, from jazz to *world opinion*, are clear evidence that no nation can be an island culturally.<sup>1</sup> People now put circles around the world in 48 hours, thoughts in a matter of seconds. Motions of this order break all our canons for measuring acceleration of intercultural influence. We cannot say it is 10 times as great as in 1900 or 50 times as great. Our new condition is simply incommensurable, so out of proportion to the past that former standards of measure are as useless as foot-rules in a cloud chamber.

Accompanying this *annihilation of distance*, we are witnessing a spectacular rise in the East's influence in world affairs. Assuming we can avoid another world war, by A. D. 2010 approximately two billion citizens of Asia and Africa, who today are weak and underdeveloped, should be industrialized. Occidentals will then be in a minority of one to three among peoples of approximately equal temporal strength.

The shift in education our new world situation requires is enormous. Twenty-five hundred years ago it took an exceptional man like Socrates to say "I am not Athenian, I am not a Greek; I am a citizen of the world." Today we must work to help all our students toward these words. We have come to the point in history when anyone who is only an American or only a Burmese is but half human; the other half of

\*The actual title of this paper was "Acquainting Students With Non-Occidental Problems and Cultures."

<sup>1</sup>On a recent trip around the world my sukiyaki was served from an electric skillet in Kyoto and from a charcoal hibachi in New York! A cartoon in *Saturday Review* of a Japanese and an American seated side by side on a plane, the Japanese reading *Industrial Age* and the American *Zen Buddhism*, echoed this situation.

his being, the half that beats to the pulse of all mankind, has yet to be awokened.

To borrow a phrase from Nietzsche, our students are moving into a world in which they will be summoned to be cosmic dancers who do not rest heavily in a single spot but lightly turn and leap to see the world from different angles. When a SEATO is formed Americans must understand why Burma stays out of it. When India retains its neutrality in the face of strong suasions, Americans dare not be oblivious of its reasons. Our students will develop their own perspectives, and no doubt they will be distinguishably Western. But no longer can they be cast in the hard mold of oblivion to others. For if democracy is going to work in this fast-moving world, it is going to have to be manned by citizens whose minds are both nimble and widely informed.

Here there is space only to introduce the three central questions relating to opening our colleges to further knowledge of the East. What should our students learn, where in the curriculum, and why?

## I

It is widely supposed in the United States that the fundamental problem facing non-Occidental peoples is communism. I would hope our students could be brought to see that this supposition is imprecise. Actually communism is riding forces far more powerful than itself.

The basic force at work in the non-Occidental world is revolution, a revolution which actually bundles four revolutions into one. There is, first, the economic revolution against grinding poverty and hunger; second, the colonial revolution against Western domination; third, the racial revolution against second-class world citizenship for the two-thirds of the world's population that is colored; and fourth, what may be called, for lack of a more precise word, the human revolution, as masses reach out for health, education, and personal respect.

Nothing is going to stop this four-fold revolution, but the direction in which it will carry the East is not determined. How to channel it is, I would say, the East's basic problem. Western students must see this, and I will carry the point one step further. As industrialization is the only hope for a higher standard of life in such crowded areas, these people are going to industrialize. But industrialization requires capital and these people have almost none. Where will it come from? There are only three possibilities: from the Communists, from us, or out of the hides of the people. But it is not possible to extract capital voluntarily from people already living marginal lives. This means that if the West withholds economic aid from non-Occidental peoples, it drives them toward dictatorship, either local dictatorship as people accept even iron rule if it promises a way out of impasse, or international dictatorship as their search for aid drives them progressively into the Communist camp. Obviously nothing here provides justification for aid unwisely given.

The basic problem facing non-Occidental peoples is how to meet this

four-fold social revolution which is upon them. But there is another side to this problem; namely, how unindustrialized people can effect the transition to industrialization without cracking their traditional cultures fatally. Industrialism grew upon the West; as it took time for technology to develop, society could ingest its inventions *ad seriatum*. By contrast, technology is breaking over the East like a wave. The problem of accommodation is therefore greater. Thus far there seems to be only confusion as to the form the accommodation should take. But students cannot be said to see the problems of the East until they perceive this cultural side of the problem along with the political one.

This last point provides a transition to the second half of what I wish to say about the content of instruction about the East. American students should not only become acquainted with Eastern problems but they should also be introduced to Eastern cultures, especially, though this may be a professional bias, Eastern philosophies and religions, and also Eastern art, literature, and history. For some reasons I don't understand, Eastern music, unlike the other humanities, seems far more difficult for the West to understand.

## II

Where in the curriculum should non-Occidental subject matters be taught? For yet a while the answer must be: usually in courses devoted specifically to them. For with the exception of those in anthropology and political science, which by definition take the world as their province, few college teachers are equipped to deal with the East. Offerings will thus have to await the trickle-through of competent teachers, and their competence will appear so distinctive that they will usually feel inclined to inaugurate special courses dealing, say, with Oriental Art, Far Eastern History, or Indian Philosophy. Rightful specialization will decree that something of this pattern of compartmentalization will continue. But we may also hope that as the new Copernican Revolution Spengler called for continues, as, more and more, teachers whatever their discipline widen their angle of vision to include the total human scene, we shall find China's past, Japan's problems, and India's perspectives studding lectures and assignments as casually and frequently as Plato or the French Revolution.

## III

Why should American students learn of the other half of mankind? The political reason has already been cited. It is terribly important. The more we understand others, the less we need trip or justle in this daily more crowded and touchy world. And yet I should hope that utility, even the sublime utility of peace would not be our ultimate motive. For the final goods of the mind and spirit are not instrumental in any sense. To work one's way into a different point of view, a dif-

ferent perspective, and this is what the Orient has to offer us, is to have gained a binocular view of the human enterprise. And the rewards of having two eyes with which to look out upon the world instead of one is a whole new dimension of vision. It is the dimension of depth. Only from depth does perspective arise.

### *Study of Non-Occidental Cultures*

**Sister M. Camille, RECORDER**

*President, College of Saint Teresa*

EDUCATORS AGREE that their primary obligation is to illumine for students their own traditions and culture. They also recognize that no one is liberally educated without meaningful exposure to at least one major culture other than his own.

Programs of study in non-Occidental areas presuppose concern with intrinsic values, attitudes and patterns, all considered within the total course of human history and contemporary world problems.

Programs for college teachers with fields of specialization in non-Occidental areas should be strengthened and expanded. Support to such programs by philanthropic foundations and the federal government through the National Defense Act is to be commended. This support should be continued and, where possible, increased.

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NOTE: Chairman of Group 25 was HAROLD E. SNYDER, Director, International Affairs Seminar of Washington, Washington, D. C.; resource person was WARD MOREHOUSE, Educational Director, the Asia Society, New York City.



## **What Effects Will the Increasing Numbers of Students who Transfer at the Third-Year Level Have on Programs of General Education and Curricular Group Requirements?**

**James G. Harlow**

*Dean, College of Education, The University of Oklahoma  
Executive Vice-president, Frontiers of Science Foundation  
of Oklahoma, Inc.*

**F**OR AN EXPERIENCED WORKER in higher education, the unit of interaction among higher institutions is the individual student. The registrar's calculus with its attachment to accrediting procedures provides the channels along which individual students and individual higher institutions move in reconciliation of their sometimes harmonious, sometimes clashing, purposes. Behind these readily visible elements of the montage of American higher education the experienced worker can discern the outlines of other interinstitutional coordinative agencies—the professional societies, the textbook publishers, the professional journals.

He can discern, too, the burgeoning demands of a rapidly shifting, industrializing social order; the anxieties of a nation caught in a terrible contest with other nations; the impacts of changing values and value systems upon all of us, but especially upon the youth who constitute the centers of our concerns as workers in higher education. What each of our institutions presents in the way of such things as curricular offerings and counseling procedures is its solution, at the moment of offering, of the vector addition required by combination of student purpose and institutional purpose, as interpreted through the instructional staff.

Obviously, an attempt to present a definitive treatment, or even a thoroughly systematic treatment of this vector addition is beyond the scope of a short article. To restrict my paper to manageable limits, I propose to use the familiar device of limitation by explicit assumption; thereafter I shall hope that the key questions derived from those assumptions are consistent with them; but readers are perfectly entitled, of course, to quarrel with the assumptions themselves.

Here are the assumptions:

1. As the community college matures under its new pressures, it will develop rather distinctive purposes—that it will be less the creature of the purposes of its students and the whims of its community and more the creature of the consciously defined purpose of its staff.

2. Our society will continue to increase its demand for people of relatively higher levels of educational attainment.
3. A substantial volume of work now considered as rather advanced will move into the earlier college years as a consequence of the needs for very highly-trained people and the consequent needs of individual students.
4. Both the social needs for people of relatively high-level attainment in general education and the consequent individual needs of students will result in more, rather than less, staff concern with general education aims in community colleges and four-year colleges during the years ahead.
5. The present variegation of pattern and student selection of secondary schools, community colleges and four-year colleges will continue for the foreseeable future.

What is the emerging division of educational labor among the two-year, the four-year, and the graduate institutions? Are we all to do pretty much the same things, differentiated only by the chronology of the compulsory education laws? Or, to put it another way, is each institution to become a comprehensive higher institution, in the sense in which a state university or a large modern high school is a comprehensive institution? Or are we to move toward differentiation of function by institution, so that some of us try to develop technicians at community college levels, while others undertake the development of the academic competencies appropriate to entrance upon upper division work in a four-year college or in the undergraduate colleges of a university?

In many ways, the division of labor problem is the most acute one with which we work. Interinstitutional competition, the authority of the graduate institutions, the ancient notion that he who teaches higher is better than he who teaches lower—all combine to drive higher institutions toward a common pattern. Resistance to these pressures is frequently difficult and painful for a particular institution, even when movement counter to the pressures is clearly indicated.

One can assert, of course, that the answer lies in intrainstitutional division of labor: that the problem for a particular college is merely the old one of struggling for greater size, so that it is possible to maintain segregation of students by ability and intent with respect to further education. If my third assumption is held to be sound, the programs for young people headed for advanced degrees may become very different at community college and four-year college levels from those for young people who do not plan advanced degrees; and the old solution may soon become quite impractical in most situations.

This is the consideration which prompts my next question: How are the current demands for specially trained people to be met through this division of labor?

It seems to me that one can make a very strong case for the description of our American educational structure as biologically ridiculous. It holds young people in conditions of dependency and economic inade-

quacy far into the years of their biological maturity; in sheer numerical measures, approximately 40 per cent of an individual's expectable life span must be committed to school if he hopes to enter high-level professional work. In the colleges, we are caught at the intersection of the educational consequences of the growth of human knowledge, the democratic need for better general education, and the biological limits of the human organism.

If community colleges and four-year colleges generally define their functions as primarily those of general or liberal education, the net effect across thousands of students is likely to be two more years for the doctorate, regardless of field. If these two groups of institutions face toward the development of specialized people, high-level education toward general education aims is very likely to suffer. The current anxiety for adequacy of supply of workers in the physical sciences, engineering, and mathematics nicely exemplifies the basic problem: how is a society like ours to ensure itself of both adequately trained specialists and adequately educated citizenry?

The fifth assumption bears here, too. What of the impact of students from relatively less able student bodies who choose higher level work in stronger student bodies? This is frequently the conspicuous problem of the transfer student at third-year levels; for the transfer student typically chooses a stronger college into which to move. In his new environment, he quite frequently slows the pace of instruction, infrequently, however, to speeds which he can accommodate. The result is depressed instructional levels and great individual discomfort on the part of many individual students.

The readily observed discomforts of transfer students at upper college levels lead quite easily to the next question: What are the specific curricular points at which improved articulation among community colleges and four-year institutions will become urgent?

Two such points are immediately apparent to virtually all workers in today's colleges: mathematics and science. It happens that these are examples of a class of subjects in which learning programs have traditionally been organized on strict sequential arrangement. In such arrangements, each year's work depends heavily upon the work of the preceding years. If we ignore the conspicuous inconsistencies (for example, algebra is not a necessary prerequisite for geometry), it becomes clear that the redesign of traditionally more advanced materials for instruction at earlier years must of necessity produce profound curricular indigestion for transfer students in sequentially organized fields. Sequential organization is also beginning to make its appearance in certain social science fields, and of course this kind of organization is very familiar in curricula in the languages.

It seems quite possible that the problems of curricular articulation between institutions might well differ from region to region in the United States. In one geographical area, the crucial problems of the transfer student might well lie in the languages; while in another they

might lie in physics. In other areas, formal integration of the community college work with that of the senior colleges may well be enforced by state authority. However, it seems that the more painful voluntary between-colleges articulation difficulties now lie, and will for the immediate future, in the sciences and mathematics, will spread from those fields into the languages, and will appear only slightly later in other fields of study.

Strong departments in any of the sequentially organized fields already find articulation with less-strong departments quite troublesome. It is a common practice in departments of physics, for example, to offer three to six semester hours of special courses at upper division undergraduate levels to provide what is in effect remedial training for graduate students who come from less well-equipped and less well-staffed departments. Such offerings are expensive in college dollars, of course, but perhaps their greatest cost is in the time of the young people for whom the courses are necessary.

If curricular articulation among institutions may be assumed to be becoming more and more necessary, what are the mechanisms through which specific need can be located and appropriate articulation be developed?

Of course, there is a considerable interinstitutional articulative activity going on all the time. Textbook companies carry on quite a lot of such activity, both in design of their manuscript specifications and in their efforts to distribute their books. To the extent that the textbook is a ready-made curriculum, institutions which use the same texts are well articulated.

The various professional societies provide considerable activity, both formally and informally related to curricular articulation. Programs devoted to curricular problems appear frequently in the meetings of the various societies; and many societies maintain formal accrediting activities; but the hotel room and corridor conversations are perhaps even more potent activities than the formal programs. The explicit activities of the regional accrediting agencies also readily come to mind.

However, there is relatively little formal between-college articulation effort, *qua* college. This situation stems from the genuinely independent nature of college government; perhaps no other American institutions so nearly approach self-determination in policy and in action. The beginnings of more formal coordinative efforts can be seen in the state boards, and in the regional boards, but the levels of such coordination typically fall far below those demanded by the curricular shifts immediately ahead.

Informal observation supports the notion that student transfer is not dispersive and general, but channelled and specific. On this *hunch* one promising approach to necessary detailed interinstitutional articulation could be developed through two activities: (1) a careful charting of the student transfers among groups of colleges, to locate what might be called "college complexes;" and (2) coordinative conferences, field by field,

among the members of the complexes—those institutions which are tightly linked as a consequence of relatively high-volume student transfer.

Effective articulation could then be undertaken in terms of such things as student qualification, teaching materials, and course content curricula, all of course within a framework of division of educational labor subscribed to, at least in principle, by the members of the complex.

Under present and probable conditions of college organization, most attempts at detailed curricular articulation will of necessity be voluntary, without any sort of coercive power behind them; and will therefore be subject always to disruption under the impact of individual and institutional ambition and competition. Nevertheless, such articulation must be undertaken if we are to escape extreme cost in the time of students and operation far below presently attainable educational efficiency.

One of the great strengths of American higher education has been its tolerance, or even encouragement of institutional diversity. Explicit attempts at interinstitutional articulation of the type I have been discussing will of necessity reduce the areas of institutional distinctiveness—or rather, will be likely to take certain areas of college work out of the realm of institutional diversity. Whether this is good or bad is a matter of one's judgment; whether it is too high a price for increased educational efficiency will certainly be hotly debated by college staffs. Any effort directed toward better curricular articulation among community colleges and four-year colleges in terms of the third-year transfer students is certain to have this side effect.

Another side effect—probably good, from my point of view—would probably be reinforcement of effort toward explication of institutional purpose. As a multi-college group struggles with articulation of its science programs, for example, the characteristics of the various student bodies and the implicit institutional purposes are sure to become important facets of the discussions.

The technology of student appraisal could well be very attractive as a substitute for detailed curricular articulation. In principle, at least, colleges could coordinate their efforts through mutually understood examination procedures. There are also undesirable side effects attached to the test apparatus.

To summarize all this, I will restate my questions in slightly different form, and present my own answers.

First, will substantial changes in curriculum in general education and in specialized education in most (numerically) community colleges and four-year colleges be necessary in the years immediately ahead? To this one, my answer is an unqualified affirmative.

Second, will the problems created by the changes become most burdensome through the mechanism of student transfer among institutions? Again, my answer is affirmative.

Third, can apparatus be designed and made operative in time to simplify these problems? Again, I should answer my question in the affirmative—but less vigorously.

Finally, will apparatus designed to reduce the problems of transfer students have undesirable effects? To this one, I would again have to answer in the affirmative, though with less assurance than in my answer to question three.

I know that I have not been either profound or authoritative; I shall hope that I have been provocative.

### **Problems Posed by Transfer Students**

**William S. Curry, RECORDER**

*Chairman, Department of English, Casper College*

JUNIOR COLLEGES have an institutional integrity and purpose to maintain that, in some cases, is very different from many four-year colleges.

Some courses should be offered in the four-year colleges that are specifically directed toward candidates who desire to teach in junior colleges.

Cooperatively planned syllabi and accrediting instruments should be made available to junior college instructors in order that many curricular areas can be articulated.

It has been recommended that attention be given to the purposes and role of the junior-community college in the over-all higher education structure. There is not sufficient rapport of communication between college units.



## How May the College Have a Greater and More Lasting Impact on Student Values?

**Edward D. Eddy, Jr.**

*Vice President and Provost, University of New Hampshire  
Author, The College Influence on Student Character*

**C** SCOTT FLETCHER, president of The Fund for Adult Education, has observed that "in the United States we can no longer count on the automatic or accidental emergence of dedicated, courageous, imaginative, and wise leaders. We must now educate for them purposefully and by design. . . Our neglect of the large and primary goal of education is *understandable*. But it is no longer *tolerable*."

The goal is one which American colleges have long made the pretense of chasing. Almost every college catalog states that its graduates will emerge as "socially competent, intellectually enriched, unbiased, rational, and disciplined leaders for a free world." By making such claims the colleges have led the public to expect fulfillment. And, by failure to make adequate provision for fulfillment, the colleges lay themselves open continually to criticism. Perhaps you read in the papers recently of the Columbia University student who sued for the return of his tuition money. His petition to the court stated that the Columbia catalog promised to imbue him with both knowledge and wisdom. He had gained knowledge, but no wisdom!

In higher education we make far too many extravagant claims. Certainly something happens between the freshman entrance and Senior Week, but who is to say that much of it does not take place as a natural part of the growth from adolescence to semimaturity?

If the colleges are to respond affirmatively to Mr. Fletcher's plea, answers must be found to some basic questions. Mr. Fletcher, for instance, speaks of dedication, courage, imagination, and wisdom as characteristics of the leader. How does the college encourage this kind of value development?

It might well begin by examining coldly and cruelly the level of its expectations. After talking with a great many present-day students and professors, one is left with the distinct impression that the academic as well as social expectations in most institutions are not on a sufficiently high level. In educational circles we are now talking of *excellence*. Does the expectation of excellence permeate the campus? A clue to the answer is the principal topic of conversation on most campuses: apathy. As one faculty member defined it, "Apathy is another way of describing

the attitude that registers superficial or studied indifference. The unfortunate result is satisfaction with mediocrity." To anyone concerned with *courageous and imaginative leadership*, it should be evident that mediocrity in any form is corrosive to excellence in both intellect and character.

The college which seeks to condition values must expect to push its students and its faculty to their outer limits. One could even say that the work should be both exacting and sometimes exhausting. The experience may reveal to the student both his strengths and his weaknesses, an important lesson which the college could teach more often to both over- and under-confident young people. I am asking here not for sweatshop intellectualism but for the kind of teaching and learning which elicits enthusiasm for genuine accomplishment. Two hundred student leaders at the University of Wisconsin recognized, through a petition to the president and faculty of the University, the need for improved standards. The petition stated, "In some cases this means simply requiring more work; in many more it means emphasizing an improved quality of work and an intelligent, analytical approach to the subject matter."

In his Phi Beta Kappa address Woodrow Wilson put the campus community to an important test:

My plea then is this, that we now deliberately set ourselves to make a home for the spirit of learning; that we reorganize our colleges on the lines of this simple conception, that a college is not only a body of studies but a mode of association. . . It must become a community of scholars and pupils—a free community but a very real one, in which democracy may work its reasonable triumphs of accommodation, its vital processes of union.

Such a community would reflect, we believe, the kind of dedication which Mr. Fletcher seeks. It would seldom experience apathy and be intolerant of mediocrity. The very climate of the campus would reflect a high level of expectation—not just in the classroom and in the relationship between student and teacher, but in the dormitory, the fraternity, the student union, and wherever one moves.

Many colleges fail initially in the orientation of the new student to this type of communal life. Unless the student becomes involved at the beginning of his academic experience, later efforts to arouse his enthusiasm meet with far less success. Too often the college succeeds in lowering its expectations to fit the freshman rather than engaging in the more difficult task of raising him to the new level. Many students, on the other hand, profess to expect a substantial break from what they have known before, a sharply ascending level of expectancy. Unless and until sufficient attention is given to the freshman year, the college will continue to have problems of inadequate motivation, now blamed conveniently on high school preparation, the home, the individual personality and any number of other factors which do not take into account the college itself.

The college seeking to modify values will do well to turn to another question: Is the emphasis on quantity or quality? I am not speaking here of numbers of students, but of the accumulation of credits, grades, hours, and other artificial symbols of the educated man. The measure of higher education unfortunately is still largely the satisfactory completion of examinations which earn marks which become credits. When an arbitrary number of such credits have been recorded, the student is *educated*. This is an old problem, but its age should not be allowed to mitigate its seriousness. Mr. Fletcher speaks of "imaginative leaders." Where, we would ask, are the imaginative colleges? And is not creative imagination also a value to be considered?

Mr. Fletcher includes the element of courage. Presumably this means courage to live by one's commitments. But *commitment* is presently a dangerous word in all but the most strongly church-centered institutions of higher learning. And there it is too narrowly defined for some. The fear of commitment has been compounded by the college's feigned devotion to absolute objectivity.

The college honestly seeking to educate leaders might well inquire: Is true objectivity really possible? I think not. The college can never be truly objective for the simple reason that inescapably it reflects and promotes the culture of which it is a part. In any college what would happen, for instance, to the student or to the faculty member were he unalterably opposed to the ideas and ideologies of the culture? Were he violently anti-democratic and anti-religious in both belief and action? The answer, of course, is that every college would reject him, some quickly and others in due time, but all eventually.

Furthermore, the college holds to a basic value pattern integral to the culture. It encourages honesty, loyalty, cleanliness, and hundreds of other *qualities* on which the culture at least tacitly places priority. The fact that a college faculty takes these so for granted demonstrates again the dependence on and reflection of the culture.

There is possible, of course, a more limited objectivity. The college can be objective *within* the framework of the culture. And this is to be desired and sought. In practice, institutional objectivity can be guaranteed in the provision for many points of view. The college should insist that members of individual departments, particularly in the social sciences and the humanities, present a wide spectrum of views in preference to a more limited but united front.

Recent studies have shown what common sense should tell, that example is a decisive factor in influencing for good or for ill. Though faculty members are often hesitant to admit it, the image of man represented by the teacher is sharply influential. In initial appointment as well as subsequent promotion, the college might well ask, beyond professional qualifications, "What image of man does this teacher present to his students?" The comment of one student is typical of his counterparts, "Where I find weakness, I take advantage of it; but where I find strength, I respect it."

The student is understandably confused by the attempt of many faculty members always to remain completely objective. Students wonder, for instance, why their teachers complain so bitterly about the students' lack of commitment at the same time that the teacher fails to take a stand. A discerning student observed recently, "We're called the silent generation, but can you really blame us? We've studied under those who make a fetish of silence." In value training it is important that the student not receive the impression that his teachers have no fixed beliefs. Instead he should understand that sound commitment is reached through the logical process of thought, devoid of quick judgments and easy rationalization to accommodate long-standing prejudices. Furthermore, once so reached, one need not be ashamed or embarrassed to make his stand known, though he should always leave room for modification and for other points of view.

Having gone this far down the road, another question springs to mind: Assuming this larger task of value education is an imperative one, what responsibility does the college have for morality? Once again, in all but the most strongly church-centered institutions, this unpopular question is said to be better left undiscussed. But the college claims in its catalog to inculcate "principles and convictions upon which conduct shall be founded." Is this not morality?

Almost comically, however, in most colleges and thus to most students *morality* is confined to questions of sex, liquor and cheating. A larger concept is both desirable and necessary. To the thinking man, morality should be more encompassing, should include integrity, justice, self-discipline, altruism. In this broader moral sense, the problems of sex, liquor and dishonesty are more rationally approached. Morality cannot be taught but it can be demonstrated. Surely there is a transfer which can be made between integrity in the study of a particular discipline and integrity in the living of a particular life.

Still another question must be asked: Does the whole enterprise add up? Or do we have in our colleges only the shotgun approach? What effectual relationship is made, for instance, between the classroom on the campus proper and the fraternity on the side street? As a complex social structure, the college is much like a clock with many tiny pieces inside—but, when all those parts move in unison, the whole instrument begins to tick and tells time. Furthermore, if the pieces do not move in unison, the clock won't work. If learning is to be on a high level, if leaders are to be trained, all else must support this essential purpose.

Edmund Sinnott uses the phrase "the contagion of intimacy" to indicate how an organism adapts itself to its environment. If excellence is to be contagious, the student must be surrounded by it. The effective contagion is the result of a communicated tradition to which all phases of campus life make their particular contribution. This includes again the dormitory, the fraternity, the social life, and even recreation, none of which can be left to its own devices, for all must be expected to be a part of the whole.

On most campuses communication is woefully inadequate. It is illustrated by a continuing lack of attention to an interpretation of the college's role. As one student commented recently, "The president gives speeches all over the country. He describes higher education to everybody but those of us who are being educated." A vast number of students appear to *go through* college without ever knowing what it was they just went through. An unfortunate result of ineffective communication on a campus may be the failure of students to appreciate the free university as an agency of a free society.

Finally, what justification does the college have for indulging consciously in value modification? The essential purpose of the college is training for intelligent behavior. This includes the acquisition of knowledge but it also includes the ability to make relevant judgments and wise choices. Here is where the college finds a rationale for value education. The two purposes—enlarged knowledge and relevant judgment—are inseparable both in training and in practice.

Education should be much more than the mere retention of subject matter. It should include the attitudes, habits and allegiances which are part of an educated person because he has undergone the college experience. Hopefully these are not the same attitudes, habits and allegiances which the freshman brought with him to college. Hopefully they have been altered, deepened, and intensified through the process of intelligent self-analysis. The responsibility of the educated man is that he make articulate to himself and to others what he is willing to bet his life on.

The college's unique and best contribution to leadership is a direct product of a properly balanced emphasis on learning. The conditions conducive to the development of leaders are, in many ways, the same ones conducive to good teaching and sound learning. The elements in the campus community which encourage value examination are those which also encourage learning. The obligation of the college to strengthen and deepen its dual role implies not abandonment, but intensification of its primary purpose of intellectual development. The principles which call forth allegiance in the academic community are those which may also serve to guide the future leader in the world community.

## College Impact on Student Values

**Andrew C. Smith, S.J., RECORDER**

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and

**John Twomey, RECORDER**

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COLLEGES AND UNIVERSITIES would be unrealistic not to recognize the development of character traits and value judgments that students undergo during their formative undergraduate years. In this process, of course, the roles of the colleges may differ. The strongly church-related institution is in a better position than the tax-supported university to be explicit about ideals and conduct. Yet there is a common ground where expectancies are identical. Intellectual integrity and respect for the rights of others are only two instances among many of the values that all colleges can reasonably expect their students to cherish and exemplify.

Such values become more meaningful and more permanently effective in the measure that they represent the fruit of the individual student's self-examination and find frequent application in campus experiences.

Teachers, curriculum and various organizations contribute to the forming and fostering of values. Some specific examples may be cited:

1. *Courses*, e.g., in religion, law and esthetics influence religious, moral and esthetic values.
2. The *personal example* of the teacher and his or her *teaching ability*.
3. Continuous orientation programs on the part of various faculty members.
4. Student-faculty cooperative groupings, e.g., in counseling and guidance, in committee workings.

### *Conclusions:*

While a succinctness of goal, in terms of values, is not always to be found, there is a greater-to-lesser agreement on religious-moral value systems.

The college, of whatever type it may be, does not simply stimulate *intellectual curiosity*, but does, at least implicitly in all the ways mentioned, inculcate and *impose* or propose religious-moral values.

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NOTE: Chairman of Group 27, Section 1, was PHILIP E. JACOB, Professor of Political Science, The University of Pennsylvania; resource person was WILLIAM DENNIS SHAUL, Student Body President, University of Notre Dame; chairman of Group 27, Section 2, was MARTHA H. BIEHLE, Dean of Students, Stephens College.



## *What Are the Relative Merits of Student Scholarships, Loans, and Work Programs?*

**Wesley W. Walton**

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**I**N THE BODIES OF LITERATURE on student financial aid, the financing of higher education and national manpower problems, ample evidence and expert opinion is to be had in support of certain assumptions. The assumptions I am about to make will be used as a launching pad from which to orbit a question: What are the relative merits of student scholarships, loans, and work programs? Unfortunately, there is a dearth of research related to this specific question.

It should be noted that evidence on the basis of which significant studies of the scholarship-loan-job complex can be carried out is for the first time building up. Loan funds in relatively adequate amounts now starting on their way, soon will be on operational bases at the colleges. Thus, a missing element in the previously incomplete picture is now within sight. In a few years the question of relative merits of the several forms of student financial aids may be answered within the framework of research. It is my conviction that it should be. We really need to know with confidence what the relative merits of scholarships, loans, and work programs are and, further, we need to know with some degree of certainty the appropriate degree of interdependence and interplay among these three forms of student financial aid. Thus far, as I observe it, the *mass movement* of the public interest in the direction of student loans, as evidenced in the elimination by Congress of the scholarship title prior to passage of the National Defense Education Act of 1958, and the dampening in some quarters of interest in the scholarship approach of financing an able student's college education are both based entirely on unsubstantiated hunches at worst, and superficially-grounded insights at best.

The assumptions which make up my launching pad are as follows:

1. The supply of money of all kinds for student financial aid—from scholarships, from loans, from work—now falls short of the aggregate need.
2. As students' expenses at colleges increase with the continuation of rises already well on the way in charges for tuition, fees, room, board,

and in the cost of living generally, the gap between aggregate need and the total resources for student financial aids will widen. That is, unless new forms of aid are opened up.

3. There are many who now do not go beyond high school, who would benefit from higher education and who would benefit our society by having college degrees behind them. A significant proportion of these able young people fail in reaching their full potential for the lack in financial resources. Efforts should be made, and money should be found to get these students into and through college.
4. Students and their families now pay relatively little of the cost of education. A larger proportion of the educational costs than now will need to be borne in the future by students, by their parents and/or by their donors.
5. *Ergo*, the foreseeable supply of money of all kinds for student financial aids will continue to fall short of the aggregate need. My assumptions have come full cycle.

Many may wish to define my five assumptions as issues. Against these propositions, let it be said that scholarship, loan, and work programs for college students are equally meritorious, are mutually interdependent, and that each has a vital part to play in financing higher education. We need them all, and all three forms of aid will need to be widely and wisely used. Let it be said, further, that separately and in concert, they are completely inadequate. More scholarships are needed, more loan funds are needed, more work opportunities are needed than are now available. Parts of this dollar inadequacy question, it is of interest to note here, have been recently *battled* by our colleagues, among them John Dickey, Seymour Harris and M. M. Chambers, in the arena of ideas on the editorial pages of the *New York Times* and elsewhere. Their arguments are reported in part in an issue of the *College and University Bulletin* of the Association for Higher Education from which I quote: "The price tag on higher education continues to increase and the discussion over 'who' should pay continues unabated." Mr. Harris advocates a modification of a *pay as you go* plan, to wit: *pay after you've gone*. Several of his adversaries look to society to pay *in advance* for the gains the college product brings to it. It is quite clear that the supply of money in higher education is a long way from meeting the demand.

It seems wise to look in an operational way at the question of how scholarship, loan, and work program funds, which are inadequate to solve the problem of aiding students through college, can be expended to the optimum benefit for all concerned. At this point, I am willing to get close to the jaws of the lion and propose an approach which, though not entirely new, to me personally seems both reasonable and practicable.

The scheme has three facets. First, the commitment of funds within scholarship programs, student loan operations, and student work programs should in all three areas be controlled by the financial need of each individual student on a case by case basis. Second, scholarships, loans, and jobs for college students should be administered in a given

educational setting as an integrated administrative unit and under student financial aids policies which assure judicious and frugal expenditure of all student aid funds. Third, the method of parceling out scholarships, loans, and jobs to students should take into account the relative ability of all the beneficiaries of these aids.

One way to work out such a plan would call for classification of all students—say at the time of admission or initial matriculation—into five groupings, or into quintiles. Classification could be achieved by combining admissions and/or placement test results with key elements of the academic record earned during the previous level of education. *Ability quintiles* thus would provide an axis for a set of variables, on which to base decisions on who should be aided by available scholarships, loans, and job opportunities. For those who need financial aid, determinants might be as follows:

1. Applicants in the 5th Quintile, or lowest, should be left to their own resources.
2. Work opportunities should be offered to those applicants in the 4th Quintile.
3. Work-loan packages should be offered to those applicants in the 3rd Quintile.
4. Work-loan-scholarship, or loan-scholarship, packages should be offered to those applicants in the 2nd Quintile.
5. Loan-scholarship packages, or substantial scholarships, should be offered to those in the lower portion of the 1st Quintile.
6. Full scholarships should be offered to those in the upper portion of the 1st Quintile.

The above differentiations are meant to illustrate the point that existing measurement devices, including both standardized test results and summations of school marks and college grades, may be advantageously used to establish a rationale for the equitable distribution of admittedly limited resources for student financial aids.

Carrying my little scheme a bit farther, it would not be a normal expectation to offer aid to students just because they got themselves placed in one classification or another—be the classification scheme based on mental ability, athletic prowess or whatever. What I am talking about here, please recall, is the effective use of admittedly inadequate financial resources. And money will go only so far.

This brings me to another axis for another set of variables on which to base other decisions. The principle of individual need evaluation was mentioned as one facet of my three-part scheme. Applicants tendered admission and students in college would be encouraged to make their needs known. All imbalances between the financial resources available to the student and his total expense picture would be matters of active concern to be satisfactorily resolved in counselor-settings by college financial aids officers. Such a scheme would require access to facts detailing the financial situation in the families from which the counselees come. The College Scholarship Service—now containing about 200 mem-

ber colleges and universities—is a fact-gathering agency devoted to this end. The CSS, further, makes objective analyses of families' financial reports in order to determine what financial resources are reasonably available from the parents to defray college expenses. Thus, the financial aids officer—rapidly gaining stature as an indispensable part of college administration—has access to and with the current state of the *science* or *art* of needs analysis, can make good use of the tools through which the amount of need is determined on each individual who has brought his financial imbalance up for resolution. *Need profiles* then could provide the axis for a set of variables on which to base such decisions as these:

1. How much of the work program budget should be committed to this individual in the 4th Quintile?
2. How much work and how large a loan should be included in a package for this 3rd Quintile individual?
3. How much work and what combination of loan and scholarship make the optimum package for this 2nd Quintile individual?
4. How much aid does this lower 1st Quintile case need, what portion of his grant should be in scholarship and how much in loan money?
5. What is the complete and actual need of this upper 1st Quintile case and where shall we get the money for a full scholarship to meet his need?

In each case, need would be met, not exceeded. With appropriate recognition of student academic prowess on the one hand, as in the *ability quintile* grouping, and with accommodation of individual financial need on the other hand, as in the system of financial need analysis I have called "need profiles," two important stones in the portal of student financial aids are in place. The keystone of the arch might be identified as integrated administration of all student financial aid funds.

As has already been suggested, the concept of *packaging* student financial aids is integral to a scheme which will stretch limited funds as far as they can reach. The questions "to whom?" and "how much?", in a fully integrated approach, would be raised with equal gravity in administering student work programs, loan funds, and scholarship grants, at both the undergraduate and graduate levels. Moreover, a given student would come out of his aid-seeking effort with a package containing, in carefully judged proportions, and totaling no more than he needs (as the college views need), any of several combinations of the three forms of aid. Assigning appropriate combinations into an aid package and placing a dollar sign on it to meet need would require that responsibility for administering all the forms of aid be brought to focus in one part of the organizational structure.

It may be well to note in passing that we are now a long way, in our colleges, from an integrated approach to student financial aids administration. I recently took a quick look at the focus of scholarship administration in about 200 colleges and universities:

Function	Number of Colleges
Admissions	113
Scholarships	24
President, Dean, or Registrar	41
Student Affairs	1
Student Financial Aid	20
Student Aid (5)	
Student Personnel Services (1)	
Student Aid and Employment (1)	
Student Aid and Placement (1)	
Guidance Director (1)	
Scholarships and Loans (1)	
Scholarships and Student Aid (5)	
Financial Aid (5)	

Although an enticing area for further exploration, I shall not belabor here the role of administration in student financial aids.

I have tried to formulate an illustrative integrated aid pattern which a college might consider as it copes with its imperatives in the area of student financial aid. This field is in a state of rapid flux. Balances among the three forms of aid are now making radical shifts. Attractive loans are more accessible, even to the extremely able, than scholarships. The curve of new scholarships has lost its acceleration. The complexion of each field is changing too.

Systematic means tests, on a standard formula modified to meet individual college economic philosophy, are now relatively common. They are now used in the main in scholarship administration. Five years ago the tests did not exist. In less than five years the means test will, I venture, be a controlling factor in loan fund administration as well.

It seems to me to be essential that an integrated pattern of student financial aid administration be found by each college to meet its own demands. Some such action will assure that the college-able do not get lost in the hustle of a changing higher education during the decade which may have been alluded to as one of decision. The pattern of whatever design, I believe, should:

1. Serve as the basis for seeking new money to be packaged into financial aid for students.
2. Serve the corollary purpose of improving the financial position of the college on each occasion new money for student aid is sought.
3. Guide the allocation of student aid funds among college classes and between undergraduate and graduate divisions.
4. Tap new sources of college-able whose need ordinarily would deter them from seeking college education.
5. Make optimum use of funds known to be insufficient.

*Student Financial Aid Programs*

**Seymour B. Dunn, RECORDER**

*Dean, Gettysburg College*

PUBLIC AND PRIVATE INSTITUTIONS of higher education have a special obligation to serve the educational interests of the nation as a whole. Increased financial assistance for students is important, but must be planned in proper relation to the strengthening of the educational program of the institution. The gap between requirements for financial assistance and available resources varies with different groups, but it is clear that financial need must be a basic qualification. Programs such as the Woodrow Wilson Fellowships are in a special category where incentive awards based on merit are fully justified.

Available resources can be augmented by increased use of loan funds. The significance of this trend is indicated by the fact that 40 per cent of the colleges receiving loan funds under the National Defense Education Act previously had no student loan funds. The liberal terms of the federal loans have already had an influence in liberalizing the terms of many existing college loan funds. The granting of financial aid to graduate students and women may involve special considerations. Except in such instances as teaching assistantships there seems no reason to waive the financial need qualification in either case, nor to look upon an educational loan as an unfair handicap to a woman.

No one formula can be set for combining scholarships, loan and work into one financial aid package. Administration of financial aid should be centralized, should involve the counseling process, and should if possible relate student employment to academic aptitude and time required for effective study. Grants of financial aid should be viewed less as a reward for past achievement than as an opportunity to fulfill academic promise, an opportunity for which the student may quite properly be asked to assume some personal obligation.

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NOTE: Chairman of Group 28 was I. N. THUT, Professor of Education, the University of Connecticut; resource persons were PETER P. MUIRHEAD, Chief, Student Loan Section, Office of Education, Department of Health, Education and Welfare, Washington, D. C., and HANS ROSENHAUPT, National Director, Woodrow Wilson National Fellowship Foundation, Princeton, New Jersey.



## What Methods Must Be Employed in Gaining Greater Financial Support for Better Public and Private Higher Education?

**Norman P. Auburn,**  
*President, The University of Akron*

**T**HREE IS UNDOUBTEDLY a growing awareness of the financial needs of higher education in America. This awareness has been demonstrated by increased voluntary giving and by larger state and municipal appropriations. It has also been evidenced by additional federal grants and loans such as those under the National Defense Education Act. The acceptance by students and their parents, reluctant though it may be in most cases, of increased tuition fees and dormitory-dining hall rates is another indication that the public appreciates the budgetary needs of the nation's colleges. Then, also, there is the manifest interest in the financial dilemma of higher education as revealed in the discussions of alumni and former students and others. Indeed, the budgetary problems of higher education are front-page news around the nation.

It is fortunate that this awareness exists because the dimensions of the financial needs of higher education are so staggering. The prospects of a doubling of enrollments and a tripling of costs indicate the magnitude of the problem involved. Higher education will have a \$10 billion annual price tag before the end of the 1960s.<sup>1</sup>

But despite the awareness of the dollar needs of the nation's colleges and universities and despite the added support which higher education has received, there is a reluctance on the part of most everyone to face up to the problem personally. We might say that everyone talks about it, but all too few do what they should about it. The prevailing attitude seems to be this: Yes, the colleges certainly do need more money. Let's hope someone puts it up. Let's hope "George" does it.

In the light of what has been done recently, this statement may seem to be ungracious and we who are trying to administer institutions of

<sup>1</sup> Seymour Harris, Harvard University, in his article "College Salaries, Financing of Higher Education, and Management of Institutions of Higher Learning," *AAUP Bulletin*, September 1958, estimates that the total cost of higher education may reach \$11 billion by 1970, including \$1 billion annually for construction. Mr. Harris developed his figures in a study he is making on the economics of higher education for the Ford Foundation. John D. Long, in his study, "Needed Expansion of Facilities for Higher Education, 1958-1970: How Much Will It Cost?", published by the American Council on Education, 1958, predicted that \$11 to \$15 billion will be needed in the next 10-12 years for buildings and services.

higher learning may appear to be ungrateful.<sup>2</sup> However, the facts support the statement. Faculties are still underpaid; plants are still inadequate; libraries are still too scanty; much instructional equipment is still antiquated.

Accordingly, it is appropriate that we consider the methods which should be used to gain increased financial support for our public and private colleges and universities.

What is the resistance to supplying the dollars higher education needs to do the job the American public expects of it? Each college or university must find the answer to this question in terms of its own constituency if it is to obtain adequate funds.

Does the constituency understand and subscribe to the aims and objectives of the institution? Frequently it does not because the institution has failed to set forth its purposes clearly and succinctly. Indeed, some institutions themselves know only in a vague way what they are trying to accomplish. Thus the first important thing the institution must do is to re-examine its aims in the light of society's needs and define sharply what it proposes to do. Next it must publicize its aims intelligently and continuously.

A word of caution here. I am not suggesting that the college change its objectives in order to attract funds from a certain constituency. Such a plan would be ill-advised. Indeed, it would border on being dishonest. Rather, let the college hold to its aims and objectives and then seek support from those who subscribe to and are interested in furthering such aims.

Is the constituency convinced that the college or university is operating with reasonable efficiency? Much of the lag in voluntary giving and increased appropriations stems from the belief that certain institutions are extravagant and wasteful in their operations. Those of us in higher education know that this is not true in most institutions. Our job, however, is to endeavor to become as efficient as we can in transmitting knowledge and in the study and research which add to the sum total of human knowledge. But we must also strive to convince our constituencies that education cannot be managed and operated as one would an industrial or mercantile establishment. The business and professional men who dominate most collegiate governing boards must be made to realize that the measures of efficiency they use in appraising their operations are not, in the main, applicable to institutions of higher learning.

Are we, in the opinion of our constituencies, using our present sources of income as effectively as possible? In the light of our defined objectives and society's needs, are we pricing our service, that is, setting our tuition and fees, at the proper level? In asking this question I recognize that education serves society and is not to be regarded merely as an economic

<sup>2</sup> "Going Up—Voluntary Support of America's Colleges and Universities, 1956-57," reveals that 910 colleges, universities, and professional schools reported gifts totaling \$832,937,123 during the year. This report is the result of a survey conducted jointly by the Council for Financial Aid to Education, the American Alumni Council and the American College Public Relations Association.

and cultural advantage to the individual. Are we using capital funds intelligently? For example, many administrators contend that it is ill-advised to use gift money or tax money for income-producing buildings as long as federal and private loan funds are available. Others will not agree. Some private colleges have been successful in convincing their constituencies that gifts and grants should be used to construct and endow such amortizable structures as residence halls. But most state universities are unable to obtain tax funds for dormitory construction.

If we can answer questions such as these to our own satisfaction and especially to the satisfaction of our constituencies, then the principal method we should utilize is the time-tried art of salesmanship. Granted that we have a good product and perform a necessary service, our task is to market it. These terms, some will say, should not be applied to a service as essential to the national welfare as higher education. But the fact remains that most of the outstanding colleges and universities—tax-supported or privately-endowed—have achieved their positions of eminence by convincing their *public* through intelligent salesmanship. Of course, they began with a quality product. But then they merchandised it intelligently and thus were able to improve and expand their services and to become the great institutions they are today.

Any good salesman knows that a market survey is essential if the product or service he sells is to be moved successfully. Applying this technique to higher education, it is advisable that the college which seeks private or public funds be sure to blanket its logical and natural market.

The private colleges and universities should seek support, through sound salesmanship, from all possible areas of support—their family and adherents; their students and their parents, their graduates and former students; their friends; the industries, foundations and general public interested in the type of service they render; their denomination: the churches and religious bodies; their trustees and governing boards and lay advisers.

The public institutions should identify and cultivate all their constituencies which can influence or legislate appropriations. In addition, they should seek private gifts and grants. Indeed, any intelligent citizen is a likely prospect for cultivation by tax-supported institutions in that he will surely know one or more legislators whom he could approach on behalf of financial support for the public institution.

After market research, sales promotion enters the picture. At least one sales promotion effort aimed at obtaining additional support for higher education is making good progress. I refer specifically to the "Help Higher Education" campaign sponsored by the Advertising Council and the Council for Financial Aid to Education. This national appeal to aid the "college of your choice" has made excellent headway during the past two years. Much of the credit for the public's awareness of higher education's financial needs belongs to this campaign. Its newspaper, magazine, house organ, trade journal, radio and television, car

card and billboard advertising programs have helped convince the American public that professors are underpaid and in short supply, that college faculties are inadequate and that additional funds are necessary if John and Mary are to get a college education.

But here again the colleges and universities must do a personal selling job. They must implement the national campaign on the local level. Using the beneficial effect of the national campaign they must identify their individual needs in relation to the national needs.

America's colleges and universities now have an unusually favorable set of circumstances in which to prosecute their campaigns for financial support. They offer a service more and more young people want, and that more and more older persons regard as essential. They have a vastly growing market and the end is not in sight. Moreover, the Russian threat has alerted the American people to our dependence on higher education. Indeed, it appears that the climate for seeking additional support could hardly be improved.

Let us not forget that the American people are receptive to giving. Jacques Maritain, the eminent French philosopher and now Professor Emeritus of Philosophy at Princeton, looks at Americans objectively and writes:

Americans like to give. Of course, there is the exemption from taxes for gifts directed to the common welfare; but this very law about taxes would not have been possible if the astute legislator did not know that as a rule the American people are aware of the fact that it is better to give than to receive. Not only the great foundations, but the ordinary course of activity of American institutions and the innumerable American private groups show us that the ancient Greek and Roman idea of the *civic paeclarus*, the dedicated citizen who spends his money in the service of the common good, plays an essential part in American consciousness. And let me observe that more often than not the gifts in question are made for the sake of education and knowledge.<sup>3</sup>

It remains, then, for all of us to do our utmost to sell our respective institutions to our total constituencies. We are convinced that higher education is the principal means of preserving the American democracy. Let us use every honest, legitimate and effective means of acquainting our various publics with higher education's financial needs. We fail in our mission as educators dedicated to the service we know America needs above all else if we neglect doing what we know must be done.

What I have said may appear to be couched in Madison Avenue terms and not academic jargon. I phrased it so deliberately because I believe our constituencies are a mass market and because I am convinced that in this critical period in the American democracy "Education Is Everybody's Business."

<sup>3</sup> Maritain, Jacques. *Reflections on America*. New York: Charles Scribner's Sons, 1958.

### *Institutional Financial Support*

**T. W. Van Arsdale, Jr., RECORDER**

*Executive Vice President, Worcester Polytechnic Institute*

BEFORE PRESENTING their *cases* to potential supporters, individual institutions of higher education should arrive at definitive articulations of their objectives and their long-term but specific plans and programs for achieving them. In fact, it is important for the institutions of higher education as a total group constantly to reiterate the needs of higher education and what is needed to satisfy them. Such reiteration of the total *case* would assist in establishing a frame of reference for consideration of the case presented by individual institutions. Certainly, it is imperative that competitive aspects between institutions or groups of institutions, whether public or private, be eliminated in the cases presented.

More aggressive programs aimed at informing all members of the institutions' constituencies, and thereby securing their support and participation, are decidedly necessary. Emphasis in information and proposals should center on setting forth candidly and frequently the educational objectives and philosophy of the institution, and every effort should be exerted to avoid *fuzzy* or too generalized statements.

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NOTE: Chairman of Group 29 was HULON W. BLACK, Executive Director, The University of Texas Development Board; resource persons were JOSEPH M. BERTOTTI, Manager, Educational Relations and Corporate Support Services, General Electric Company, Ossining, New York, and JOHN A. POLLARD, Vice President for Research, Council for Financial Aid to Education, New York City.



## **How Can the College Better Interpret Its Objectives to the Public?**

**Arthur L. Brandon**

*Vice President for University Relations, New York University*

**B**EFORE A COLLEGE CAN *better interpret* its objectives, it first must formulate them, and then understand what they mean. When such goals are formulated and understood by those responsible for policies and objectives, then the initial step in interpretation has been taken.

Interpretation, like charity, begins at home. In any organization only a few people make policy, but in an educational institution, every teacher ranks not lower than a vice president in his right to know about policies. Likewise, in the present decade there has been a tremendous rise in the demand and expectation of the student to be a participant in programs in their developmental process. A first rule of improved interpretation is to have wider participation in the determination of objectives and procedures. Those who have a share in making a program are more willing to believe in it, and to try to influence others to believe. This in no sense lessens the responsibility of governing boards and administrators; rather it provides them with a force of interpreters who understand, not an army of critics who are uninformed.

The college family can be kept informed through individual and group conferences and discussions, through direct publication or letters, through visual and audio aids. Even the smallest college today needs at least two direct publications, one the house organ type for internal use where topics can be discussed forthrightly and perhaps even semi-confidentially, and another for external publics. Offshoots might include special communications for parents of students and other specialized publics, in addition to the usual alumni publications. The internal organs now utilized by many large institutions are a recent development in the public relations field, and are proving invaluable as means of keeping faculty and staff informed of developments.

Written materials, however, frequently are not read, or if so, are soon forgotten. The wise college administrator should supplement publications with many conferences—even at the expense of other things—for the purpose of interpreting past actions or forthcoming decisions. He should be prepared for questions and opposition as well as for comments and support. Such meetings should be well-staffed and fortified by ade-

quate preparation. If there are no existing groups for such discussions, such as faculty senates or councils or their committees, then one or more should be organized or meetings created with lists of invitees according to interest and purpose.

Although a college may have excellent internal relations and sympathetic understanding of its program and objectives, it does well to review these periodically. This may be done through self-study and evaluation, which should be supplemented with reviews by guests. Such study and evaluation leads to a reaffirmation of goals and at times to the discovery that all is not as right as it had seemed.

With a thorough internal understanding the college is in a strong position to seek to improve public knowledge of its objectives. Detailed and authentic information is a *sine qua non*, if such interpretation and such information can be conveyed by interested people through direct means, as well as by mechanical devices and mass media.

The printed word—in newspapers, magazines, books, or processed copy or letters—is as valuable as ever. There is a durability in print not attained in other media. Just as the college must compete for the public dollar for its support, so also must it compete with a wider range of subject matter for public interest. In a sense, this is ironical, since it is education that is responsible for the thirst of the people for more knowledge through the press. Unfortunately, not many readers demand news or interpretation about education, and no publication can be far ahead of its readers. But the Russian outer space competition has moved the university science story from inner space to page one!

Significant and timely educational stories will be used by the newspaper or magazine. Our problem in the immediate future may lie in a determination of *what* is important, or *when* it is important. What is significant in 1959 may receive no attention in 1961. We cannot rely on the old or the traditional. We must think of the fresh and the exploratory.

An education editor of one of the nation's great newspapers says he soon expects to apply this test to all copy received: "Is it important in Nebraska as well as in New York?" One would like to think this will mean more emphasis on faculty accomplishments than on feminine beauties or football heroes. As essential as the press is for public dissemination of educational news, the college that depends upon it alone will not have its objectives or programs or needs very well understood. To get widespread interpretation, an educational event must have widespread value.

To provide for widespread interpretation, the college must lay plans in advance and arrange attention-getting events. A public event built around an important plan or idea will attract scores or even hundreds of interested persons who learn not only about the subject of their immediate interest, but about other activities of the college as well. Properly prepared, with visual aids even more extensive than for the internal

conferences previously mentioned, such events provide for specialized, direct interpretation which will be effective and long-lasting.

Interpretation is abetted by the individual and group services in the community by college personnel. A college has little claim upon a community when its political science professor will not accept the responsibility for service on a volunteer nonsalaried town council. Conversely, the *help weeks* of fraternities now taking the place of the destructive *hell weeks* of earlier years in due course are gaining for these organizations the social values sought by their founders.

Our citizens have appreciated the educated man, yet overlook and sometimes neglect the source of his education. If faculty and students would more frequently identify themselves with their college on the occasion of their good acts, the public would have a deeper sense of the service of the college in the community, and there would be a lessening of town versus gown feeling.

In the days ahead the college may find it desirable, convenient, yes, even profitable, if it will provide educational opportunity off-campus. Some universities have recently established graduate degree programs in industries in such fields as engineering and business administration. The industrial laboratory is more likely than not to be better than the university's, and it is more practicable and less expensive to transport a few teachers to the industrial center than a few hundred students to the campus. Schools and departments of education have done this for years, but for some reason this extension sense was delayed by most teaching units until recently, when it was spurred by successes in wartime teaching experiences.

Such educational service has not only developed an appreciation for the specialized industrial programs, but at the same time has prompted interest in other phases of college work. Thus, better understanding has resulted through the best kind of interpretation: the experience with the teacher.

Television is now providing an opportunity for the able teacher who can use the medium to extend the educational offerings of the college. Indeed such courses have values far beyond those accruing to the participants, whether student or teacher. New York University's "Sunrise Semester" courses, which attract an audience of from 100,000 to 200,000 persons in each of 12 half-hour segments a week have stimulated wide interest in literature, mathematics, sociology, anthropology, *etc.* Thus, the professor and the university's objectives are better understood than before the television venture.

Next to the teacher and administrator the college should be best interpreted by the alumnus and the trustee. Indeed, on some matters the alumnus or the governing board official is in a better position than others to serve as interpreter, if he will inform himself about the college. Not being on the college's payroll, he would be considered by the public to be objective in his opinions and comments.

Trite though it sounds, colleges must increasingly strive to inform

alumni and trustees of their goals and their needs. It is not unusual for these members of the immediate family to feel that a college is more adequately financed than it is. Only recently a member of an important committee for one of the leading universities complained about his alma mater because it is "always after money when it has that big endowment." He did not consider, because he did not know, that most endowment funds are largely designated for special purposes, and can be spent for no other. Properly informed, this man, a communications expert, has agreed to head the promotional aspects of the alumni share in a major fund raising program.

Alumni, like students, are sure to be identified with their college if they get in trouble. Not so certain is the identification in time of success. Such identification adds to the acclaim of the college as well as the individual and gives additional prestige to the college through its product.

A college should count on alumni for many more services than most presently provide. Alumni are honored and like to be asked to work on committees, to return to campus, to refresh their knowledge and their friendships. All these bring opportunities for further understanding of the college's purposes.

The position of trustee or regent of an American university or college is an honor coveted by many men and women. Normally, they are public-spirited people of prestige and distinction, and frequently of great wealth. Hence, their voice is listened to and their own favorable impressions of the college have widespread influence on others. Generally, there is little training for the trusteeship. If the colleges would adopt and demand a period of orientation and a continuing program of education about the college for the trustee, he would be in a better position to interpret and to represent than is usually the case. And the trustee would get greater satisfaction from his affiliation. Not all trustees are wealthy enough to give large amounts of money, but all can stand as witnesses for the college.

Many of the colleges in the United States had their inception in the church. Some of the nation's best known major universities, now labeled independent, trace their origin to a local church, a state or regional religious association. Most small, privately-supported colleges retain a church connection today, but many of them do not recognize the value of this constituent relationship. The growing separation is more due to neglect than to incompatibility. One of the aims of these church-related colleges should be to keep the parent body well informed and sympathetic. To do this, not only should the identity be retained, but special efforts made to use church media and conferences for the purpose of interpretation of the college's aspirations and its service for the advancement of human welfare.

Some segments of the college family do not understand the necessity for stepped-up public relations programs. There are those who feel that the institution's academic excellence will alone hold the interest and support of the public. Admittedly, the educational program is the

strongest element in any public relations undertaking. But what good the college does must be known to be appreciated. Even those who have derived the greatest benefits from education, as well as those who provide the education, need to be reminded of its values. Those who have no affiliation with the college sometimes look at it in awe. Proper interpretation should remove some misunderstandings and misconceptions.

It has not been my purpose to discuss the mechanics of interpretation in terms of the contents of a news release, a picture booklet, or a television program; nor have I tried to elaborate on how an individual or group should engage in interpretation directly or indirectly. I have been concerned with the college's knowing itself and its objectives; and then with the orientation, even indoctrination of others. The involvement of people is the key to understanding.

### BIBLIOGRAPHY

Henry, David D. "Higher Education and the American Public." *Higher Education and the Society It Serves*. Washington, D. C.: American Council on Education, 1957. p. 1-11.

*The Advancement of Understanding and Support of Higher Education*. Washington, D. C.: The American College Public Relations Association, 1958. p. 1-83.

Mayer, Martin. "Good Colleges That Are Not Crowded." *Harpers*, 218:44-49, February, 1959.

Josephs, Devereux C. "Three Explosions in Higher Education." *Pride*, November, 1958. p. 5-7. Also other articles in this issue of *Pride* devoted to communications.

## *Interpretation of Objectives*

**Eldredge Hiller, RECORDER**

*Vice President, Public Information  
Council for Financial Aid to Education, New York City*

COLLEGE GOALS should be reaffirmed and deviations corrected through periodic self-surveys and evaluation; findings should be tested against outside opinion. These practices are basic to sound internal and external understanding of the institution, its ideals and its achievements.

Having assured itself that its house is in order, a college should set up machinery to regularly inform the *college family* and the public on institutional plans and progress.

Public relations does not mean just the mailing of releases; it attempts to bring the college out into the community and to bring the community to the college. This may be described as involvement. Faculty and trustees may join the community in service enterprises and the campus should be regularly opened to the public and specialty groups with invitations to seminars, exhibits, special services and campus tours.

Once a college considers itself a neighbor in the community, it can expect support from the community. "Only as it opens its doors can it open its books."

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NOTE: Chairman of Group 30 was RUSSELL V. KOHR, Director of Development, Lake Forest College.



## How Can Plans Be Effectuated Which Will Insure Optimum Use of an Institution's Facilities?\*

**W. T. Middlebrook**

*Vice President, University of Minnesota*

THE TERM INSTITUTION'S facilities, usually termed "physical facilities," includes in business officer language *land*, *buildings*, and *equipment*. In this article I am not including equipment, although I fully recognize that there are means whereby certain equipment could be centralized and given wider usage to the benefit of both space and the capital account of the institution. My intent here is not to be exhaustive but rather to touch "the tips of the iceberg." *Optimum use* means to me the best use of land and buildings consistent with the academic objectives of the institution.

*What should be included in a facilities inventory to provide a basis for determining possible optimum use?*

First of all, the inventory should include *all* land and *all* buildings. I have noticed a common tendency to think of facilities as including only classrooms, libraries, lecture rooms, laboratories, and offices relating to instruction and research. This is the usual segment of our facilities toward which room utilization studies are directed. If the inventory is so limited, it will encompass less than half of our facilities. For example, in the very detailed study which we undertook at Minnesota a few years ago, instruction and research facilities, in terms of assignable areas, included only 43½ per cent of our total assignable areas. I would predict that in many institutions an equally surprising percentage of the total would emerge from a complete inventory of space.

In our study we have divided buildings into five major groups; namely, (1) instruction, research, and general use; (2) internal services (laboratory schools, hospitals, storehouses, and services); (3) housing and feeding (dormitories, dining halls, cafeterias); (4) physical education and athletics (stadium, field house, and intramural facilities), and (5) auxiliary buildings (primarily agricultural; barns, poultry houses, seed houses, and the like).

\*The actual title of this paper was "The Optimum Use of an Institution's Facilities." It was presented by Harold Gores, President, Educational Facilities Laboratories, New York City.

Each major group of space is further subdivided in our functional classifications. For example, "instruction, research, and general use" space is subdivided into instruction, research, public service, administration, plant operation, and student service; and "instructional" space itself for both improvement of use and projection is subdivided into general classrooms and college space areas for laboratories, offices, and other purposes.

In our study land falls into three groups; namely, (1) land for building locations, (2) land for play and recreation, and (3) land for parking. I am purposely not including land for agricultural experiment purposes.

This functional classification of land and buildings is preceded, of course, by a comprehensive listing of all buildings including information concerning cost, gross area, net area, assignable space, together with date and type of construction. This building information has proved to be useful not only in connection with improvement of use, but in connection with long-range planning. The functional classifications of building space are, of course, even more detailed than I have indicated above. These groups and subgroups, however, do indicate the general direction of our approach to this problem. The full functional classifications as used in our study are available in the book entitled *How to Estimate the Building Needs of a College or University* with the subtitle, "A Demonstration of Methods Developed at the University of Minnesota," published by the University of Minnesota Press.

*What tests should be applied to determine whether or not optimum use is being made of present facilities?*

All too frequently the test is a visual check and the ensuing general impression. There are space areas where only this method of appraisal is presently available, but there are many tests which may be applied not to all space, but to certain kinds of space. Let me give a few illustrations. In the instructional area the tests which are generally known and used are those of time and space utilization. How many hours a day, how many days a week, and to what extent is the particular classroom or laboratory used filled to its seating capacity? The use of the time and space factors, of course, do indicate a much greater opportunity for improvement in general classroom space than in laboratories, particularly the specialized laboratories of the several professions.

In "Internal Services" the use of laboratory school facilities can be tested in much the same manner as college classrooms. Hospitals, however, require different and much more elaborate tests of use and occupancy, particularly with the assignment of fixed numbers of beds to the several medical services. Storehouses lend themselves to visual checks, but here turnover of inventory is important. In "Housing and Feeding" facilities, occupancy, turnover, the relation of recreational and auxiliary space, and square footage per student, are controlling factors in judging use. "Physical Education and Athletics" space lends itself to spectator check and to the relationship of available space, both indoors and out-

doors, to the student body. "Auxiliary Buildings" are generally the equivalent of college laboratory space and can only be tested on that basis.

Land area use can be related to building space. To illustrate, the usual four-story college building requires its equivalent square footage of land areas. Parking space is, of course, directly related to the number of cars accommodated. The unsupervised, uncontrolled use of land areas for parking led my institution into a controlled pay plan.

There are many other tests that could be cited, and perhaps standards for the institution set, such as the number of square feet of office space per staff member. In our projections we used an optimal factor of 75 square feet of office area for each teaching assistant and 120 square feet for each instructor and each assistant, associate, and full professor.

Our study indicated that with an increasing enrollment a significant improvement in the use of present facilities could be expected, particularly in general classrooms and in college laboratory space. The over-all result could perhaps be best illustrated by saying that with the expected increased enrollment in 1970 and without change in general program, "Instructional, Research, and General Use" space of  $119\frac{1}{2}$  square feet of assignable areas per student is possible as compared with the base year (1954) of 169. This is, of course, better than a 30 per cent improvement.

*To what extent does building and campus planning affect optimum use?*

I will list some of the more important items which should be kept in mind in building planning. One of over-all significance is the relationship of assignable space—space within the particular room or office—to the gross area of the building. Expressed otherwise, what percentage of space is devoted to corridors, stairs, and other auxiliary purposes? In our more recent buildings, assignable area is 64 or 65 per cent of the total. In some of the older buildings it is several per cent less. Our projections are based on a 66% per cent goal. This can be readily accomplished if we depart from the traditional four-story building and plan in terms of three kinds of space; namely, large lecture rooms directly entered, the traditional four-story buildings for classrooms of 90 and below, and multistoried adjoining office structures. We hope to use this type of construction in one of the new areas of our campus.

Much could be said about the effect of campus planning on optimum building use. Let me merely observe that buildings should not be too widely separated, and that buildings related to established student curricula should be grouped together to avoid unnecessary student and staff traffic. Otherwise, the class interval must be increased and automatically class time and building use are reduced.

Clearly, the greatest difficulty in securing optimum use of buildings can be attributed either to inadequate or improper planning in the past and in some cases of course, to changes in course offerings and curricula.

Undoubtedly, we shall have to live with some of these mistakes and changes due to the high cost of remodeling, but certainly some can and should be corrected, for even high-cost remodeling could be less costly than new construction.

*To what extent do academic practices affect optimum use of facilities?*

The number of course offerings, the proliferation of courses, the curricula, the established size of class and laboratory sections necessarily affect our ability to make optimum use of class and laboratory space. One of the interesting things which was observed in a study in which Minnesota participated was the large proportion of small classes and the inability to take care of the number of small classes in the existing number of small classrooms. This resulted, of course, in a poor room utilization, for small classes were necessarily assigned to large classrooms. Perhaps sometime in the not too distant future, the factors of course offerings, class size, and curricula will be related more closely to space availability and use.

The growth of research in some of our institutions in the last decade has been unprecedented. Here lies a problem for space expansion that has not kept pace, and undergraduate laboratory and other facilities are being diverted to this purpose, perhaps to the disadvantage of needed strong undergraduate programs. Our practice of attaching great emphasis to research accomplishment in rank, promotions, and salary improvement has further intensified this problem. Many administrators are beginning to view with some alarm this shift in staff activity and space use.

*How can present facilities—improved in use—be made the basis for the determination of future needed facilities?*

Briefly stated, there are two traditional methods of projecting space needs for increased enrollment. One is based on the general assumption that each additional student will require the existing number of square feet per student. The other represents the unsubstantiated listing of college and department hopes for new buildings. Usually both are devoid of any validity, allow for no improvement in space, and erroneously assume that all kinds of space must be expanded in existing ratios. Such methods also are open to the danger of projecting existing deficiencies as well as specifying too liberally, and frequently overlook the important fact that the college in which the student is enrolled does not provide all of his instruction.

Without further elaboration, let me list the major steps which we followed in our projection of new building needs:

1. Preparation of an inventory of all land and buildings. The character and functional use classifications have already been discussed.
2. Preparation of population estimates for Minnesota for 1954, 1960, 1965, and 1970. The estimates were used as a basis for projecting

- space needs for such public services as correspondence study, special short courses, agricultural and home agent work in the field, exhibits, concerts, lectures, surveys and testing.
3. Preparation of student attendance estimates campus by campus and college by college for 1960, 1965, and 1970. The possibility of more state supported junior colleges in our state led us to differentiate between lower and upper division students.
  4. Determination of the distribution of instruction by colleges within the University (crossover factor in terms of student station hours per week per student). The number of student station hours (hours per week a student spends in a classroom chair or in a laboratory space) of instruction was considered the most useful common denominator for measuring activity loads, and consequently for projecting space needs.
  5. Computation of teaching load for each college, measured in terms of total student station hour load. By using crossover between colleges (from Education to Liberal Arts, for example), it is possible to translate expected attendance figures into the probable teaching load that will fall on a particular college.
  6. Relation of load to existing space. Depending on the measure of load used, this means the number of square feet per student station hour of instruction, or per student (or graduate student) or per 1,000 residents of Minnesota.
  7. Determination of optimal space use factors. Loads for 1954 were related to the areas actually required to accommodate them reasonably well at that time on the basis of a judgment of the best possible use—which may indicate an improvement over present use, may describe the *status quo*, or may reveal space shortages. These figures expressed in numbers of square feet per unit of load, the load unit depending on the kind of activity carried on in the space, are called optimal space use factors.
  8. Determination of space increase factors. This step produces the all-important means of regulating expansion. Future space needs are based on a computation of how many additional square feet are needed for each additional unit of load. This number is the space increase factor for a particular function. It varies depending on the function, the efficiency of present use, and possible improvement of space use. It is a judgment figure arbitrarily based in the case of offices, or based on statistics of existing and possible time and space use in the other functions. It may be the same or less than the optimal space factor, but never more.
  9. Computation of space needs for future loads. The final step is to apply the space increase factor to the projected additional future load to ascertain how much more space will be needed to handle that increase in load.
- Land needs for academic buildings were projected on our experience that the gross building area and the land area for a particular building

are about equal. Land for parking was projected on our experience that one parking place is required for each  $2\frac{1}{2}$  members of the university family. Land needs for housing were projected on the basis that one acre would accommodate 200 single students or 12 to 20 married students.

### **Optimum Utilization of Facilities**

**John X. Jamrich, RECORDER**

*Director, Committee on Liberal Arts Education, North Central Association of Colleges and Secondary Schools, Michigan State University*

PLANNING FOR OPTIMUM USE of instructional space should take into account all aspects of the institution—the curriculum, the objectives, the geographical location and area of service, the faculty, administration, and students.

Normative data on the use of instructional space are very incomplete. Such data can serve a useful purpose in institutional planning, although they can be considered only as supplementary information. The individuality and diversity among our colleges and universities underscores the need for giving full consideration to the various characteristics which distinguish one institution from another.

Factors which adversely affect the attainment of optimum use of present space are (1) the practice of scheduling lectures during the morning and laboratories in the afternoon; (2) assignment of specified rooms and buildings to individual professors or departments; (3) the assumption that an  $n$ -credit course should meet for at least  $n$ -hours per week; (4) the provision of expensive laboratory facilities for practically every science course in the curriculum; (5) avoidance of certain hours of the day; (6) incomplete use of the entire week, and (7) lack of centralized administrative control of space assignment.

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NOTE: Chairman of Group 31 was T. C. HOLY, Special Consultant in Higher Education, The University of California at Berkeley; resource persons were FRANCIS G. CORNELL, Engelhardt, Engelhardt, Leggett and Cornell, New York City, and JOHN B. RORK, Specialist for Campus Planning, Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

## CONFERENCE RESOLUTIONS

### Preamble

Higher Education in 1959 finds itself in a race against time. This is a race to maintain national defense, foster international understanding and cooperation, and find the perspectives necessary to meet the many needs of curriculum, facilities, staffs, and students which colleges and universities will face in the future.

Our national survival depends on the full development of all intellectual resources. Well-educated persons are needed in all fields of endeavor. Only an informed, competent citizenry can possibly deal with the complex problems of the space age. Higher education has the awesome responsibility to educate specialists and citizens, soldiers and civilians, lighting their paths toward learning and wisdom. Higher education is a necessity to offset the forces of fusion and fission which threaten to destroy our world. The ultimate defense of our society rests on the educated minds and informed understanding of a free people.

Higher education has a responsibility not only to help maintain national defense but also to help foster international sanity. Never before has need for improved communications, for mutual understanding, for cultural interchange among peoples been so great. It is higher education's sober responsibility to help lead Americans out of the provincialism of the present into an awareness of the needs, concerns, interests, and perspectives of the world community of which we are a part.

America's institutions of higher learning have achieved much in the past. We call upon them to strive for greater achievements in the future. We urge them to extend educational opportunities, and to continue to seek excellence in all aspects of their programs. We urge them to continue their valuable experimentation with courses of study and methods of teaching.

Responding to the three-fold challenge is no easy task. To win the race against time means unparalleled accomplishment. To lose it means disaster. This America cannot afford. This effort will call for increased expenditures of time, thought, and energy on the part of educators and of increased financial support on the part of the public.

As members of the Fourteenth National Conference on Higher Education we call upon educators to lead in imparting that vision and understanding which are essential to the perpetuation of our free society.

### Conference Resolutions

1. Higher Education and National Defense: The Fourteenth National Conference on Higher Education recognizes that colleges and universities must and will continue to respond to the necessity of maintaining and

increasing the intellectual strength and broad competence required for national survival. The federal government, in executing its responsibilities for defense, must recognize that enduring strength is built from many talents, and that we must be prepared to engage in a conflict of ideas as well as a competition for technical supremacy.

2. The National Defense Education Act:

A. The Fourteenth National Conference on Higher Education commends the Congress of the United States for its action in passing the National Defense Education Act and urgently recommends that the Congress appropriate the funds authorized by the Act, and adequate funds for its administration by the Office of Education. We also commend the Office of Education for its efforts under adverse circumstances to implement this Act.

B. We recommend that the forgiveness provisions of Title II of the National Defense Education Act be extended to those recipients of loans who later teach in any institution of higher learning as defined in Section 103 of this Act.

C. The Fourteenth National Conference on Higher Education opposes the requirement of an affidavit disclaiming belief or membership in subversive organizations on the part of individuals receiving payments or loans, because we believe in equality of treatment with respect to federal assistance and object to singling out students receiving this aid as a special group. We, therefore, recommend amendment of Section 1001 (f) of the National Defense Education Act so as to remove this requirement.

3. The College Housing Loan Program: We commend the Senate of the United States for acting promptly to increase the funds available for federal college housing loans and for extending the program to include loans for construction of academic facilities. The Fourteenth National Conference on Higher Education urges the Congress to adopt this legislation so that higher institutions may have the benefit of low-cost loans for construction. The Conference further urges that the professional services of the U. S. Office of Education be more directly involved than at present in the administration of the college construction loan program.

4. ROTC Facilities: The Fourteenth National Conference on Higher Education urges the Congress to establish a program of federal participation in meeting construction and maintenance costs of physical plant facilities used for ROTC programs.

5. Financial Assistance to Talented Youth: The Fourteenth National Conference on Higher Education calls attention to the continued need to provide financial assistance for talented students. It firmly believes that the federal and state governments as well as private agencies can and must provide additional scholarships, fellowships, grants-in-aid and loan assistance so that those with ability but with limited financial means may secure a higher education. Such assistance should be available to those

entering any field of study. Furthermore, the size of the stipend should be related to the individual's financial need.

6. Recruitment of College Teachers: The Fourteenth National Conference on Higher Education recognizes the critical need for qualified college teachers now and in the years ahead. We encourage colleges and universities granting higher degrees to develop well-defined programs preparing students for college teaching. We encourage the counseling of promising students into these programs. We bespeak the cooperation of federal and state governments, as well as foundations and other agencies, to provide financial and other supports for prospective college teachers.

7. Experimentation in Higher Education: The Fourteenth National Conference on Higher Education commends colleges and universities for their experimentation in curricula, teaching, student selection, and use of facilities. We urge that in order to meet the demands they face, colleges and universities experiment constantly with better ways of achieving their objectives, evaluate, act on and publicize their results. We also urge that foundations and other donors continue and expand their generous aid to educational experimentation.

8. Equality of Opportunity in Educational Institutions: In keeping with our democratic ideal of equality of opportunity, and mindful of the requirements of national security and survival, the Fourteenth National Conference on Higher Education urges that leaders in higher education do all in their power, at the local, state, and national levels, to provide equality of educational opportunity without discrimination because of race, creed, or sex.

We commend those individuals and agencies whose leadership and example have contributed toward the achievement of equal educational opportunity by eliminating racial segregation in educational institutions. Since we believe that the public schools are a bulwark of a democratic nation, we deplore the closing of public schools as an alternative to complying with the decisions of the courts. We urge individuals as well as public and private agencies to continue their efforts toward the elimination of racial segregation from educational institutions and organizations.

9. International Educational Development Fund: The Fourteenth National Conference on Higher Education commends the idea of an international educational development fund, as presented by Senator Hubert H. Humphrey on March 3, 1959, to this Conference, and urges that educators and other interested citizens give serious consideration and support to the objectives of his proposal.

10. Appreciation: The Fourteenth National Conference on Higher Education expresses appreciation to President Russell Cooper and the Executive Committee, to Dr. Leland Medsker and his Planning Committee, to Dr. G. Kerry Smith and to the hard-working staff of the Association for providing leadership in American higher education, to the principal speakers and conference leaders for a better understanding of basic issues;

to the Varsity Glee Club of Purdue University, to the Congress Hotel and the City of Chicago for cordial hospitality.

We express appreciation to the various media of communication for their objective and thorough coverage of the meetings, and to all who helped make this Conference an outstanding success.

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All resolutions were approved by the Executive Committee for the Association for Higher Education on Thursday, March 5, 1959, as passed by the Conference.

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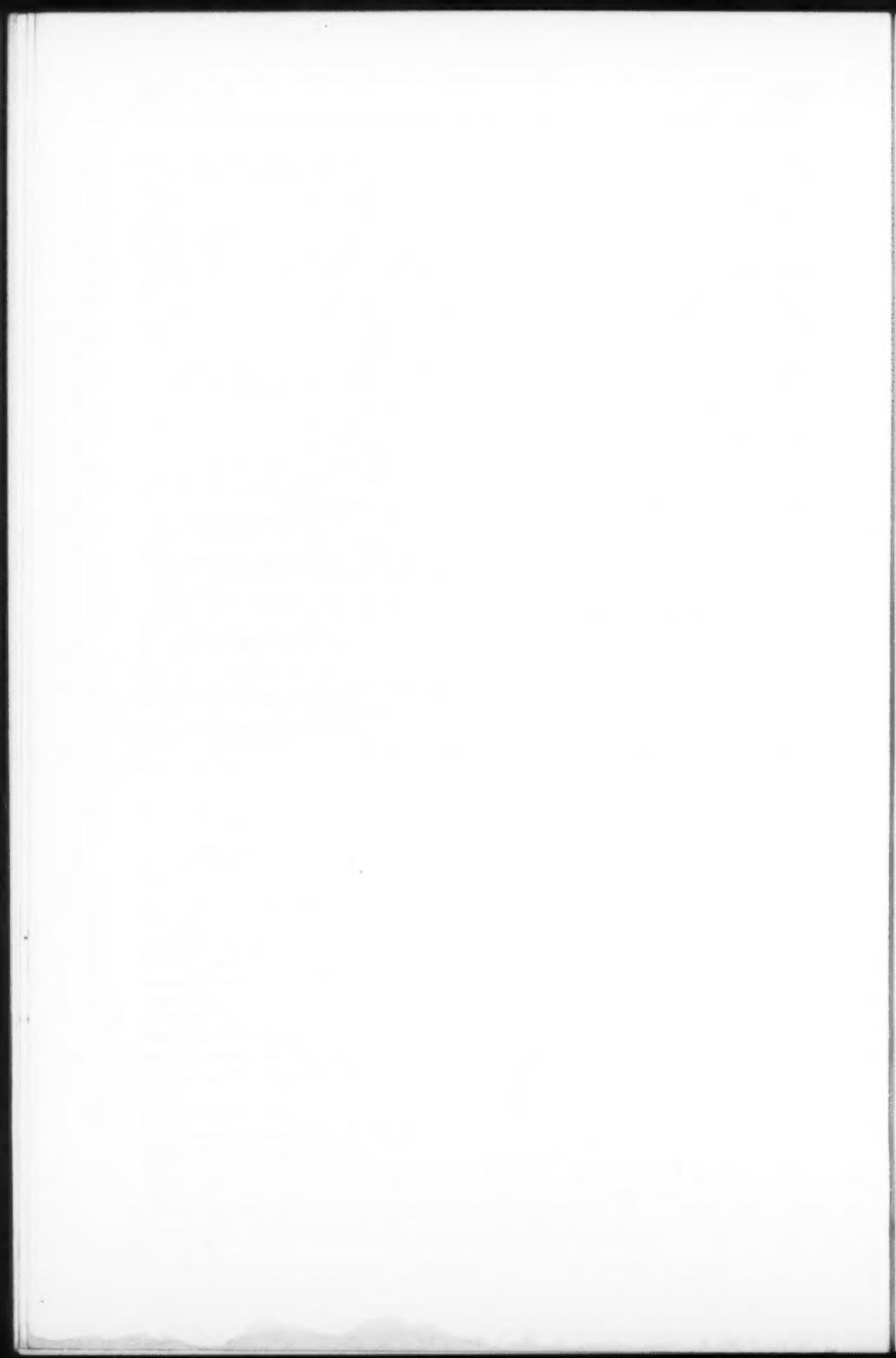
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